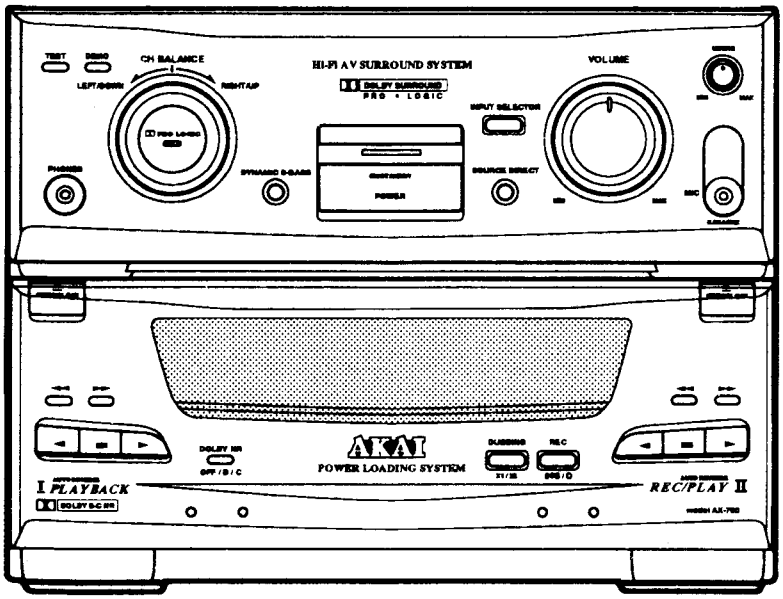
AKAI SERVICE MANUAL



DOLBY B·C NR

DOLBY SURROUND
PRO · LOGIC

MINI STEREO COMPONENT SYSTEM

STEREO DECK · AMPLIFIER

AX-700/705K

SPEAKER SYSTEM

SR-700

CONTENTS

[AX-700 / AX-705K]

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[SR-700]

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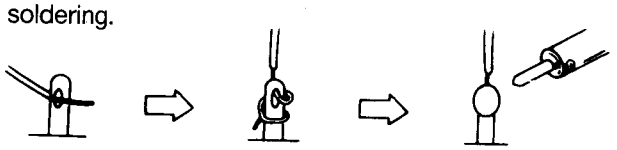
SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts indentified by the ⚠ (*)symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples:RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulating Tape
   2) PVC tubing
   3) Spacers(insulating barriers)
   4) Insulating sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. Make sure that foreign objects (screws, solder droplets, etc,) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can. Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15μF capacitor, under the unit's normal working condition.
The leakage-current should be less than 0.5mA rms AC.
The resistance measurement should be done between accesible exposed metal parts and power cord plug prongs with the power switch "ON"(if included). The resistance should be more than 2.2Mohms.

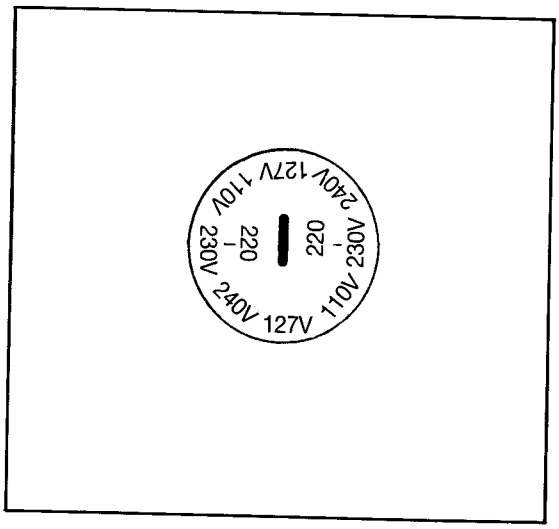
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbol	Prinncipal Destination
A	USA
B	UK
E	Europe(except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION ([U] [Y] Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the AX-705K so that the correct voltage for your area is indicated.



[U, Y]

SPECIFICATIONS

[AMPLIFIER Section]

POWER OUTPUT
- FRONT ..... more than 30W (6ohm load)
- CENTER ..... more than 22W (8ohm load)
- SURROUND ..... more than 5.5W+5.5W (8+8ohm load)

TOTAL HARMONIC DISTORTION
- FRONT ..... less than 0.5% (at 28W)
- CENTER ..... less than 0.5% (at 21W)
- SURROUND ..... less than 1.0% (at 5W)

INPUT SENSITIVITY
- VCR ..... −8.8dBs (280mV)
- AUX ..... −8.8dBs(280mV)
- LD ..... −8.8dBs(280mV)
- MIC ..... −51.0dBs(2.2mV)

CHANNEL SEPARATION
- AUX ..... more than 52dB (1KHz SP out)

S/N RATIO
- AUX ..... less than 50dBs (4.7K Ω terminate)

FREQUENCY RESPONSE
- AUX ..... 10Hz-100KHz (less than −2dB)

[TAPE Section]

TRACK SYSTEM ..... 4 track, 2 channel system

WOW & FLUTTER ..... less than 0.19% (JIS, RMS(WTD)) MTT-111AN

PB S/N RATIO
- NORMAL ..... more than 50dB (MTT-150 tape used)

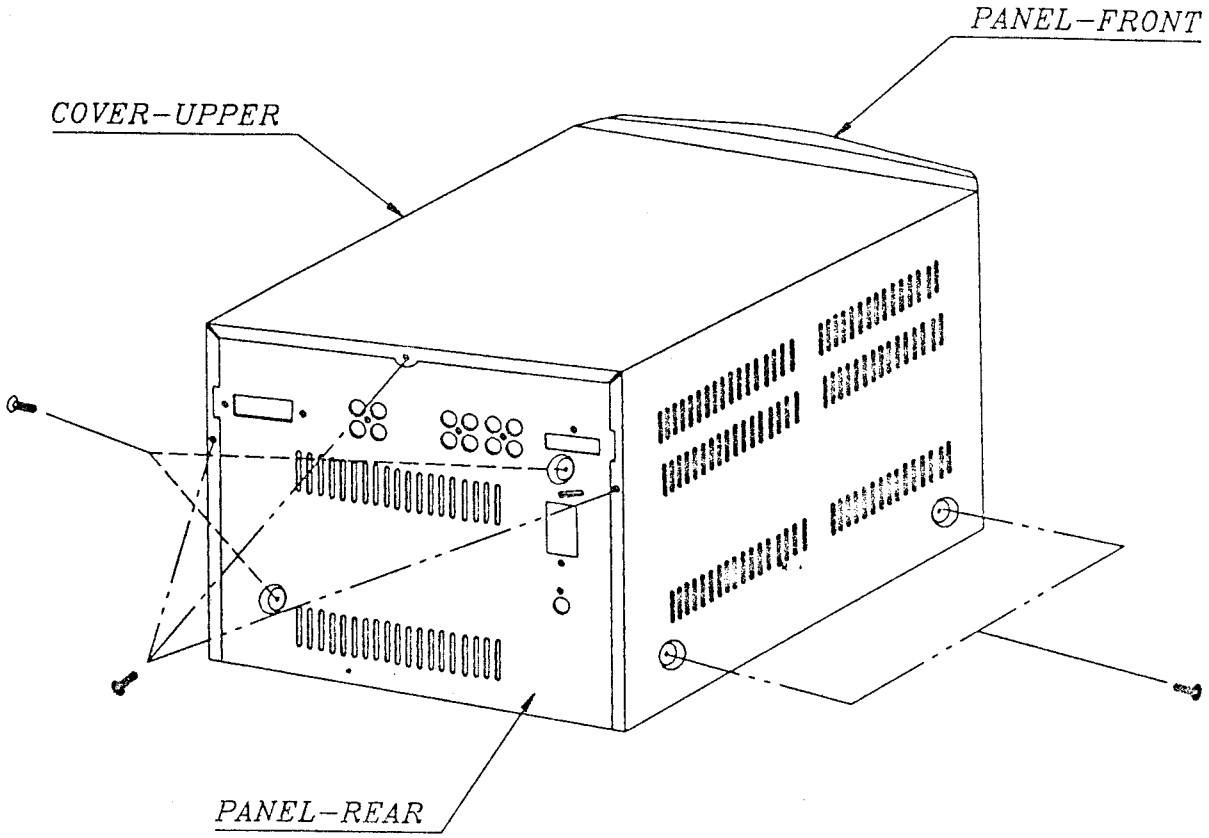
R/P S/N RATIO
- NORMAL ..... more than 47dB (AC-224 tape used)
- CrO_2 ..... more than 48dB (AC-513 tape used)

DIMENSION ..... 270(W)×209(H)×315(D)mm^3

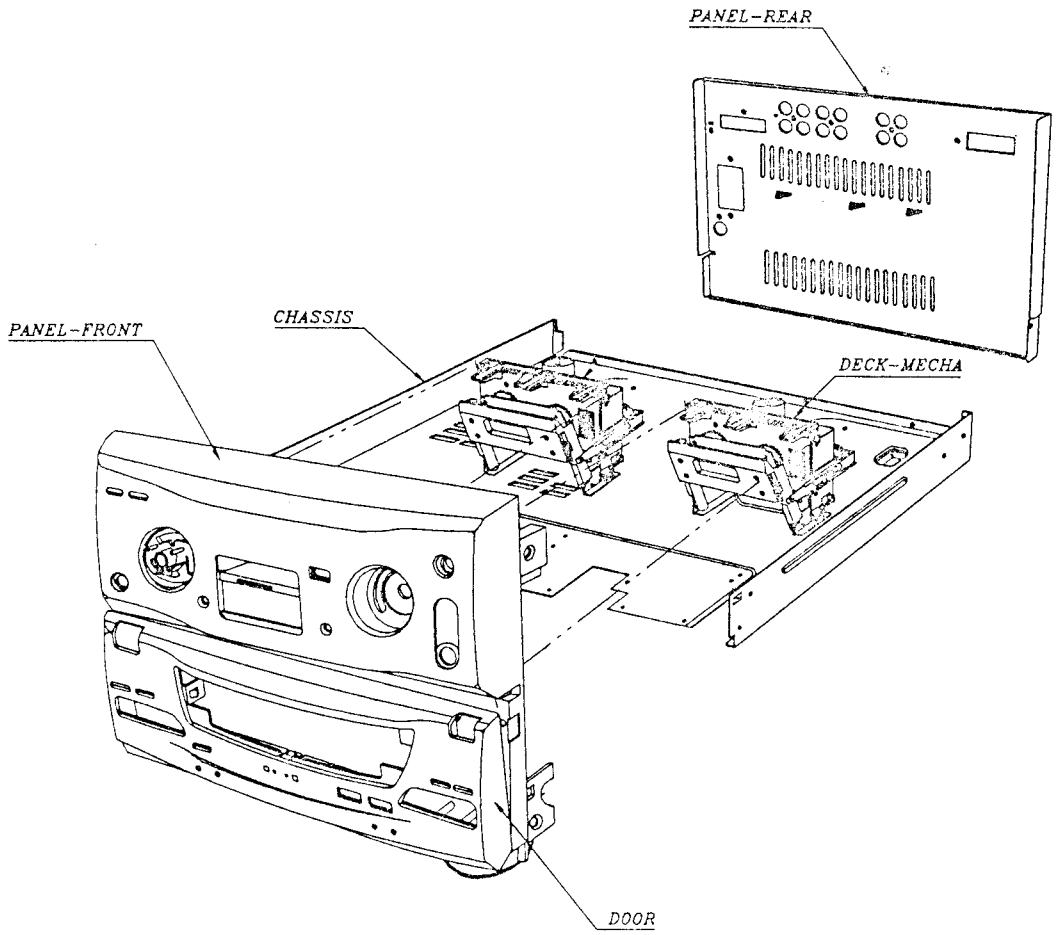
WEIGHT 7.4Kg

I. DISASSEMBLY

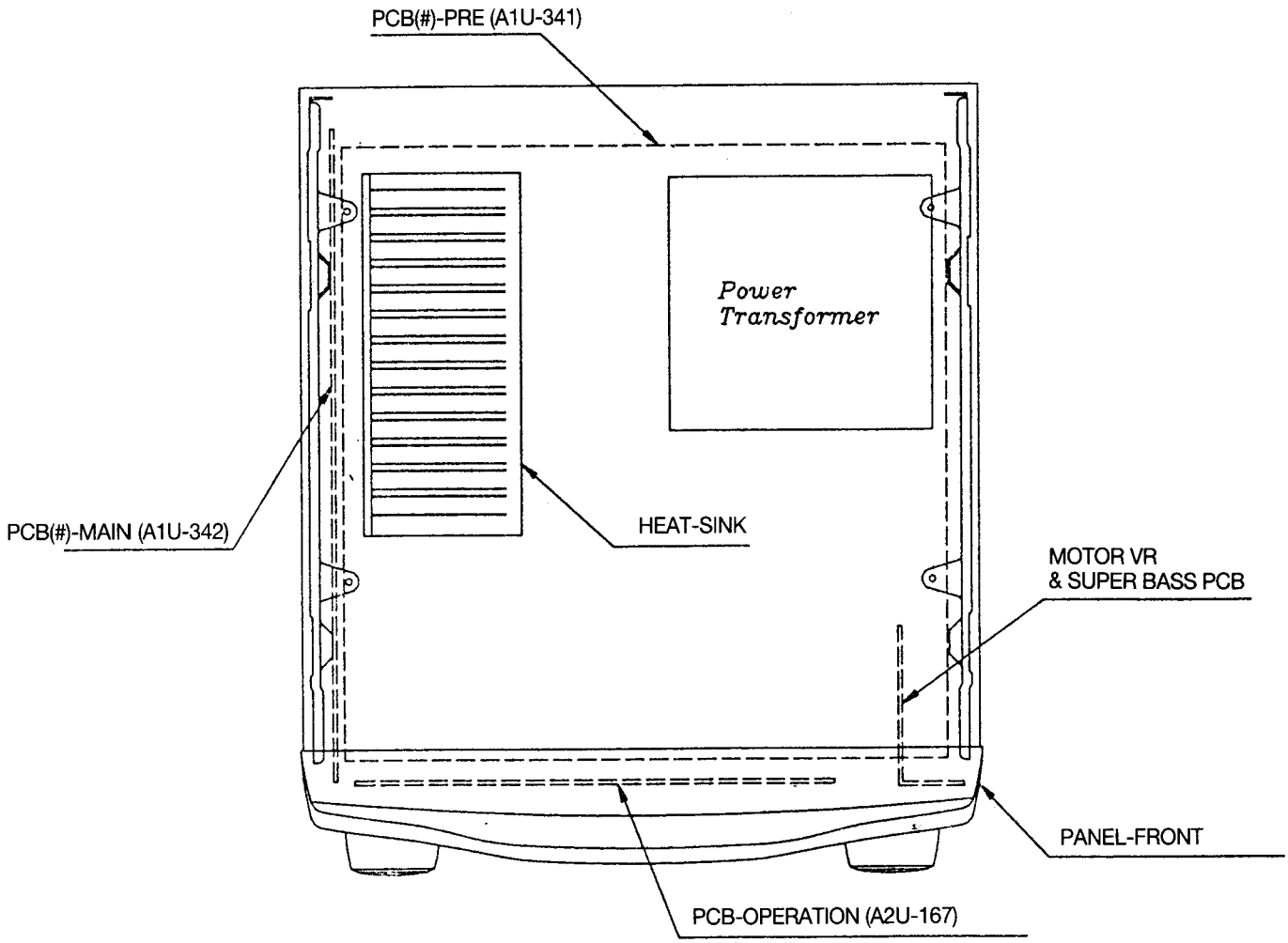
1. REMOVAL OF COVER-UPPER



2. REMOVAL OF CASSETTE DECK MAINTENANCE



II. PRINCIPAL PARTS LOCATION



III. REPLACEMENT OF PRINCIPAL MECHANICAL PARTS

CASSETTE DECK MECHANISM

1. REPLACEMENT OF THE PINCH ROLLER BLOCK

1) Pull the PINCH ROLLER BLOCK upward(⬆) while releasing the PINCH ROLLER RETAINING HOOK.
2) Reassemble in the reverse order.

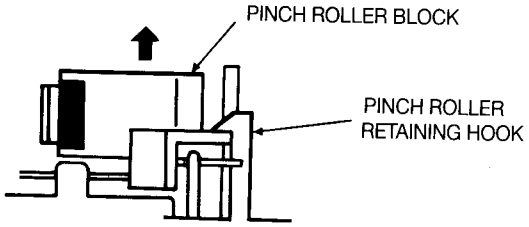


Fig. 1

2. REPLACEMENT OF THE PB HEAD (TAPE Ⅰ)

1) Remove the two HEAD RETAINING Ⓐ SCREWS.
2) Pull out the HEAD and remove the PCB.
Then, disconnect the flexible cable.
3) Reassemble in the reverse order. After replacement, head azimuth and PB level adjustment must be performed.

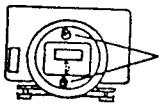


Fig. 2

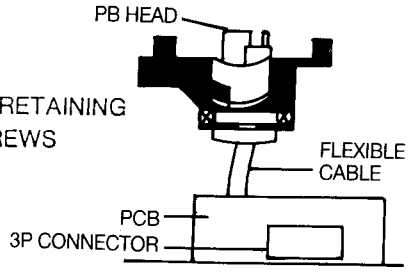


Fig. 3

3. REPLACEMENT OF THE REC/PB HEAD (TAPE Ⅱ)

1) Remove the two HEAD RETAINING Ⓐ SCREWS.
2) Pull out the HEAD and remove the PCB.
Then, disconnect the flexible cable.
3) Reassemble in the reverse order, After replacement, head azimuth, PB level BIAS current and REC level adjustments must be performed.

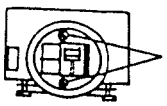


Fig. 4

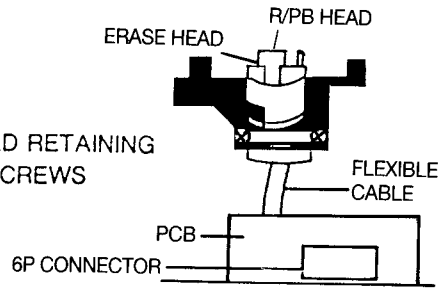


Fig. 5

4. REPLACEMENT OF THE CAPSTAN MOTOR

1) Disconnect the lead wire of the CAPSTAN MOTOR with a soldering iron.
2) Remove the CAPSTAN MOTOR RETAINING Ⓑ SCREWS, then replace the CAPSTAN MOTOR.
3) Reassemble in the reverse order and set the DRIVE BELT. After replacement, tape speed adjustment must be performed.

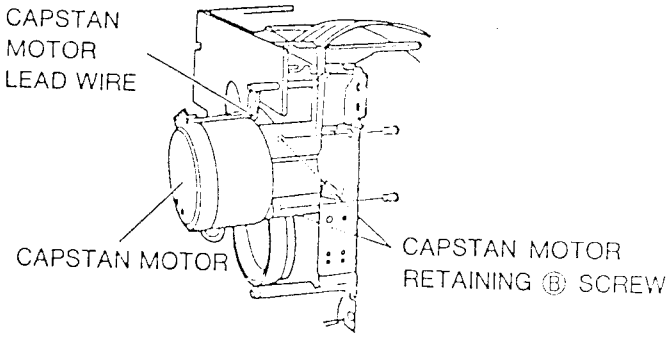


Fig. 6

5. REPLACEMENT OF THE DRIVE BELT

1) Remove the CAPSTAN MOTOR RETAINING Ⓑ SCREWS. (refer illustration Fig. 6)
2) Separate the MOTOR PCB from the MECHA BLK. Replace the DRIVE BELT.
3) Reassemble in the reverse order. After replacement, confirm the tape speed and if the result is not satisfactory, adjust the tape speed.

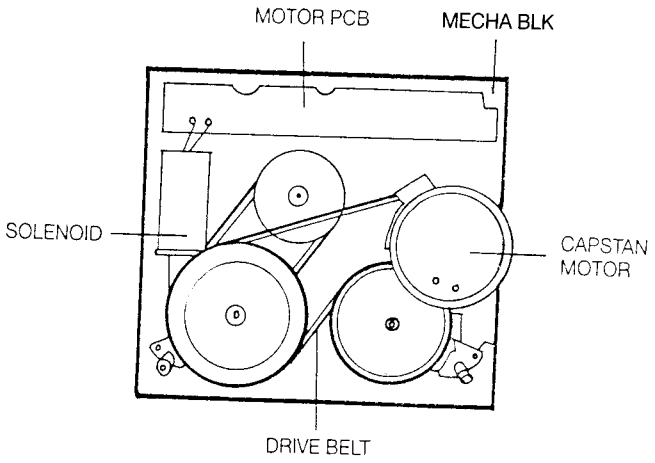


Fig. 7

MECHANICAL ADJUSTMENT

1. ADJUSTMENT OF THE PB HEAD AZIMUTH ALIGNMENT (TAPE Ⅰ)

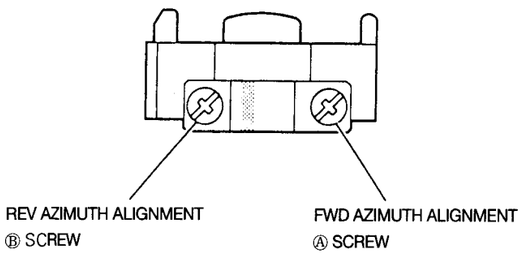


Fig. 8

1) Connect an AC milli-voltmeter to the VCR OUT and connect an oscilloscope's input CH-1 and CH-2 to the output of the AC milli-voltmeters.
2) Play back the 10kHz(−10dB), HEAD AZIMUTH ALIGNMENT TEST TAPE(MTT-114N) then adjust the PB HEAD AZIMUTH ALIGNMENT Ⓐ (FWD PLAY) and Ⓑ (REV PLAY) SCREW respectively so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase, in both FWD and REV directions.

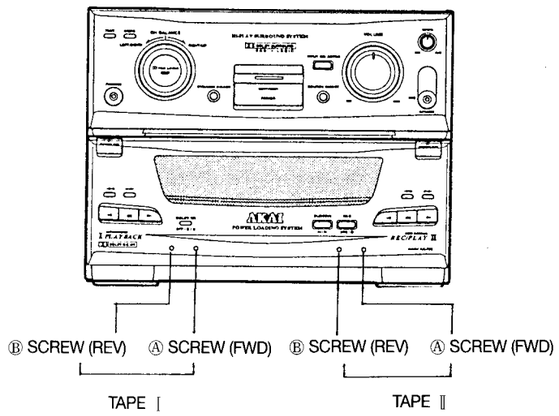


Fig. 10

2. ADJUSTMENT OF THE REC/PB HEAD AZIMUTH ALIGNMENT (TAPE Ⅱ)

1) Connect an AC milli-voltmeter to the TEST POINT VCR OUT (refer to the illustration on page 10.) and connect an oscilloscope's input CH-1 and CH-2 to the output of the AC milli-voltmeters.
2) Play back the 10kHz(−10dB), HEAD AZIMUTH ALIGNMENT TEST TAPE(MTT-114N) then adjust the REC/PB HEAD AZIMUTH ALIGNMENT Ⓐ (FWD PLAY) and Ⓑ (REV PLAY) SCREW respectively so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase, in both FWD and REV directions.

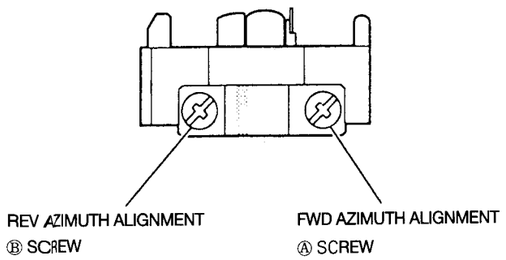


Fig. 9

CASSETTE DECK ELECTRICAL ADJUSTMENT

[PRECAUTIONS BEFORE ADJUSTMENT]

1. Before adjustment, clean and de-magnetize the heads and tape guides.
2. Use the following recording test tapes.
   Normal Tape : AC-224
   CrO_2 Tape : AC-513
3. VCR output must be terminated with resister 22 kHz
4. Initial setting
   DOLBY NR = OFF
5. All adjustments should be performed during DECK TEST mode.
6. DECK TEST mode will be engaged while pressing and holding both DOLBY NR and TAPE1 ◁ buttons, plug in the AC power cord to the AC outlet.
   Note: In the DECK TEST mode, a functionable external input is fixed on AUX.

STEP ADJUSTMENT

1. TEST TAPE/INPUT SIGNAL
2. MODE
3. TEST POINT, ADJUSTMENT PART
4. REMARKS(●) and RESULT(∗)

2 TAPE Ⅱ TAPE SPEED

1. 3,000Hz, −4dB test tape(MTT-111NA)
2. TAPE Ⅱ, PLAY
3. VCR OUT
   ×2 SPEED = VR812
   NORMAL SPEED = VR811
4. ●Connect a frequency counter to VCR OUT and press DUBBING button to engage ×2 speed. To resume normal speed, press DUBBING button again.
   ∗ ×2 speed = 6,020 ± 20Hz
   Normal speed = 2,990 ± 10Hz

1 TAPE Ⅰ TAPE SPEED

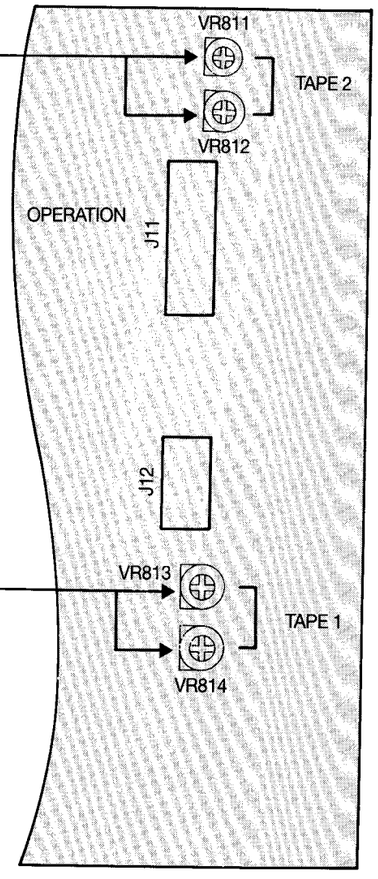
1. 3,000Hz, −4dB test tape(MTT-111NA)
2. TAPE Ⅰ, PLAY
3. VCR OUT
   ×2 SPEED = VR814
   NORMAL SPEED = VR813
4. ●Connect a frequency counter to VCR OUT and press DUBBING button to engage ×2 speed. To resume normal speed, press DUBBING button again.
   ∗ ×2 speed = 6,040 ± 20Hz
   Normal speed = 3,000 ± 10Hz

5 HEAD AZIMUTH ADJUSTMENT

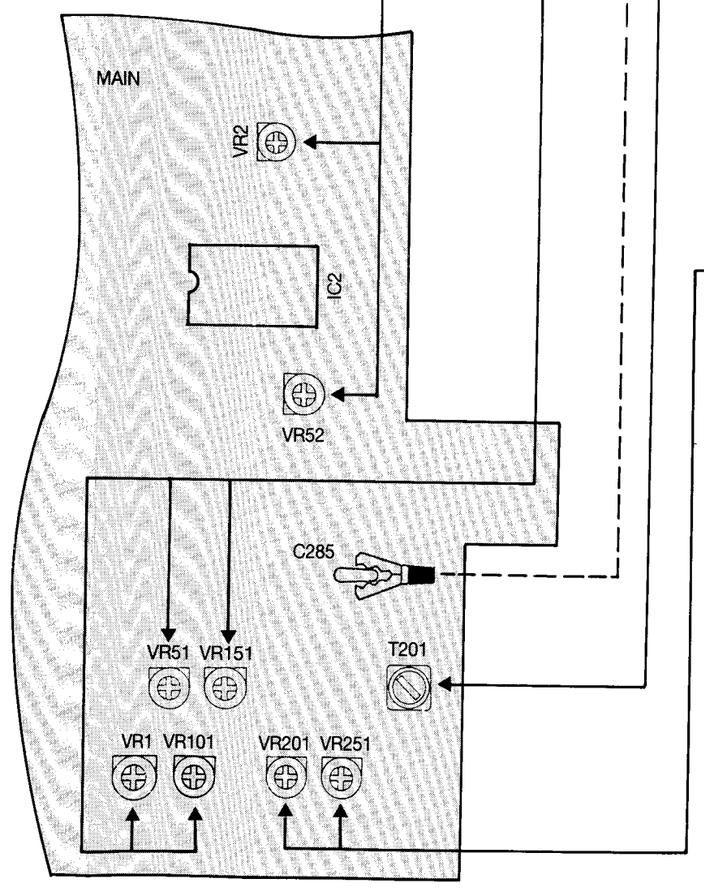
Refer to the MECHANICAL ADJUSTMENT on page 9.

6 REC LEVEL

1. Normal tape(AC-224)/1kHz −9.8dBs input
2. REC/PAUSE → REC → REW → PLAY
3. VCR OUT/VR2(L), VR52(R)
4. ●Connect a frequency oscillator to AUX input and connect an AC milli-voltmeter to VCR output. In the REC/PAUSE mode, adjust a frequency oscillator so that an AC milli-voltmeter leads to −9.8dBs.
   ∗ −6.0dBs ± 0.2dBs (387.5mV)



OPERATION PC BOARD(A2U-167)



MAIN PC BOARD(A1U-342)

3 BIAS FREQUENCY

1. No signal input
2. TAPE Ⅱ, REC (CrO_2)
3. C285, T201
4. ●Pick C285 body with a frequency counter probe.
   ∗100kHz ± 0.2kHz

4 PB LEVEL

1. 400Hz, Dolby level tape (MTT-150)
2. TAPE Ⅰ & Ⅱ, PLAY
3. VCR OUT
   TAPE Ⅰ = VR1(L), VR51(R)
   TAPE Ⅱ = VR101(L), VR151(R)
4. ●Connect a AC milli-voltmeter to VCR OUT.
   ∗ −3.0dBs ± 0.2dBs(545mV)

7 REC BIAS (NORMAL)

1. Normal tape(AC-224)/1kHz and 10kHz, −31.8dBs
2. REC/PAUSE → REC → REW → PLAY
3. VCR OUT/VR201(L), VR251(R)
4. ●Connect a frequency oscillator to AUX input and connect an AC milli-voltmeter VCR output. In the REC/PAUSE mode, adjust a frequency oscillator so that a frequency counter leads to −31.8dBs.
   Recording 1kHz and 10kHz alternately.
   Press REW button, then, unit will start playback automatically.
   ∗ Level difference between 1kHz and 10kHz is ± 0.2dBs
   ※After this adjustment, confirm REC LEVEL again.

8 REC BIAS (CrO_2)

1. CrO_2 tape(AC-513)/1kHz and 10kHz, −31.8dBs
2. REC/PAUSE → REC → REW → PLAY
3. TAPE Ⅰ's FWD and REV buttons
4. ●Connect a frequency oscillator to AUX input and connect an AC milli-voltmeter to VCR output. In the REC/PAUSE mode, adjust a frequency oscillator so that a frequency counter leads to −31.8dBs.
   Recording 1kHz and 10kHz alternately.
   Press REW button, then unit will start playback automatically.
   Press TAPE Ⅰ's FWD and REV buttons until 1kHz and 10kHz levels become flat.
   ∗ Level difference between 1kHz and 10kHz is ± 0.5dB.

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part NO., Model No., and the description of each part.
   Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering.
   If not, a part different from the one you ordered may be delivered.

[NOTE]

The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.

WARNING

⚠(*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

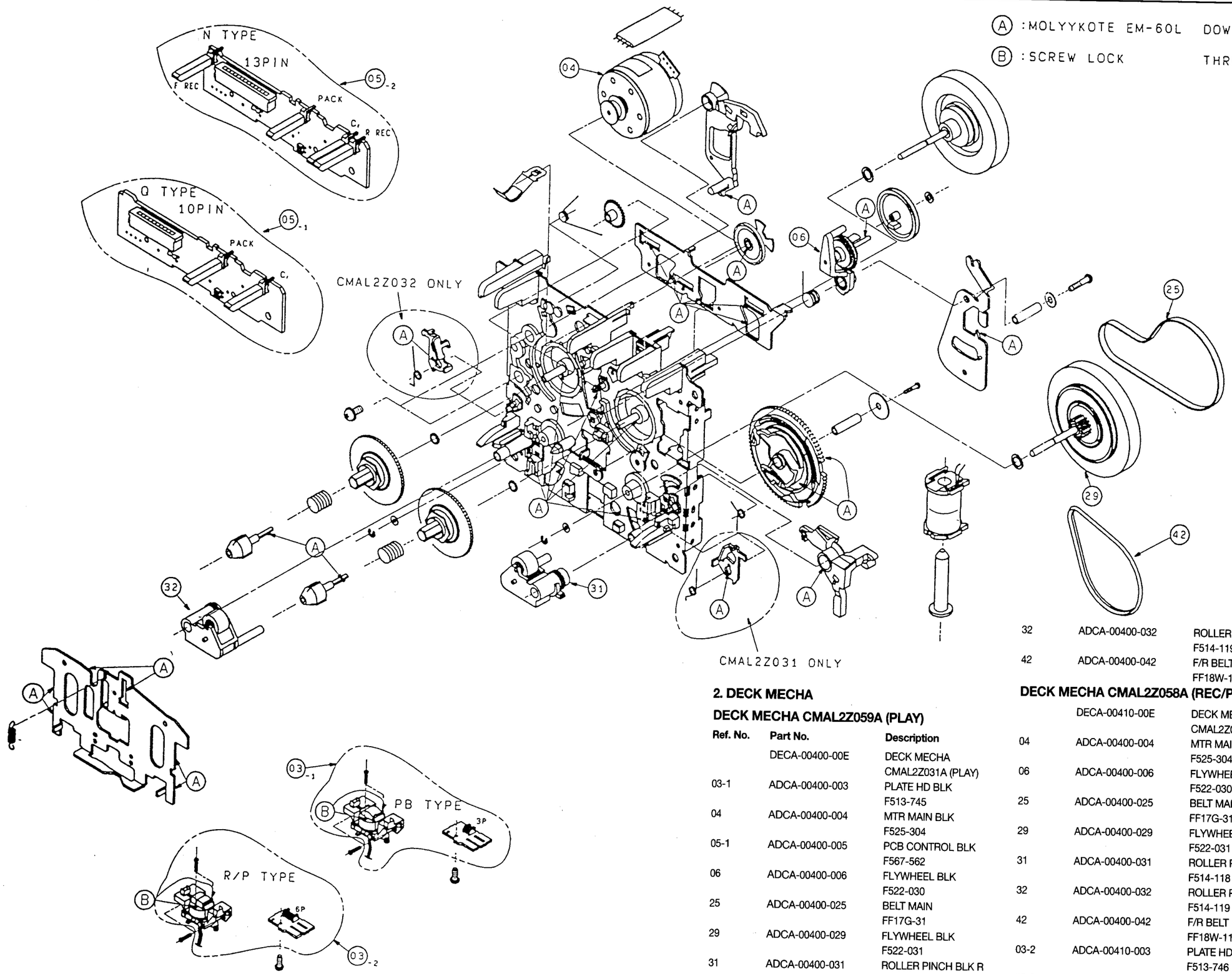
⚠(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest that you stock the following Recommended Spare Parts items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	* ACAC-00292-000	AC-CORD KKP-560 A/KKS-15A, KLCE-2F0.75 [S version]
2	* ACAC-00302-000	AC-CORD KKP-419C/KKS-15A, KLCE-2F0.75 "B" [E/B/U/Y version]
3	* ADAC-00070-C50	AC-ADAPTOR BS5733 5A BLOCK [B. Y6 only]
4	ADAC-00050-C40	ADAPTOR-AC PLUG CP2 → EP 4.0 15A [U, Y only]
5	DDTR-00040-T10	DIODE-RECTIFIER 1N4004(400V 1A) DO-41 T
6	DDTS-00060-SO0	DIODE-SI 1SS131 (90V 0.13A) DO-40 T
7	DDTZ-U055A-SA0	DIODE ZENER HZS6A-3L 5.4-5.7 DO34 T
8	DDTZ-U057B-SA0	DIODE ZENER HZS6B-2L 5.6-5.9 DO34 T
9	DDTZ-U065A-SA0	DIODE ZENER HZS7A-1L 6.3-6.6 DO34 T
10	DDTZ-U081A-SA0	DIODE ZENER HZS9A-2L 7.9-8.3 DO34 T
11	DDTZ-U3200-SA0	DIODE ZENER HZS30-3L 30.2-31.6 DO34 T
12	DD4B-00250-SJ0	DIODE BRIDGE RBV-402 200V 4A BRIDGE
13	DECA-00420-00E	MECHA CASSETTE CMAL2Z 059A (R/P) DECK
14	DECA-00430-00E	MECHA CASSETTE CMAL2Z 058A(PB) DECK
15	DPFL-00450-00E	DISPLAY FLUORESCENT BJ359GK EQ
16	DPIR-00021-005	DOT-IR LED KLN105B-B
17	DPLT-00670-MC3	DOT-LED SLH-38MC3 GRN 3.1PT
18	DPLT-00680-UY3	DOT-LED SEL2913K ORG
19	DPLT-00690-UY3	DOT-LED SEL6915A ORG
20	EMWG-00120-120	MOTOR RF-370CA-15370 12V 4850rpm
21	ESRY-00130-121	RELAY JW2ASN-DC 12V 2POLE
22	* FGFB-S1252-137	FUSE GLASS 1.25A 250V FST034.3118 T
23	ICCM-00220-U50	IC CMOS DRIVER MN12510F QFP44P
24	ICCM-00230-SR0	IC 1KBIT CMOS EEPROM ST24C01CB1 DIP8
25	ICCM-00240-S30	IC VOLUME TC9299P DIP16
26	ICCM-00250-S10	IC CMOS LSI LC7527E QFP64E
27	ICCM-20540-SQ0	IC HEX INVERTER GD74LS05 DIP14
28	ICCM-20830-SA0	IC 2 INPUT NAND GATE HD74HCOOP DIP14
29	ICDG-01460-S90	IC 1CHIP DIGITAL M65843P DIP24
30	ICDG-01490-S90	DIGITAL ECHO IC [AX-705K only] M65840SP
31	ICHP-00070-S10	IC HYBRID AMP-POWER STK4142 Ⅱ 25W×2 SIP18
32	ICLN-01900-SA0	IC TAPE PROCESSOR HA12155NT DIP64
33	ICLN-01910-SB0	IC LINEAR BA3826S DIP8
34	ICLN-01940-TC0	IC SHIFT/STORE RESIS MC14094BCP DIP16
35	ICLN-01950-TC0	IC 8CH MUX/DEMUX MC14051BCP DIP16
36	ICLN-01960-TC0	IC 4CH MUX/DEMUX MC14052BCP DIP16
37	ICLN-01970-TC0	IC QUAD SWITCH MC14066BCP DIP14
38	ICLN-01980-TC0	IN ANALOG MUX/DEMUX MC14053BCP DIP16
39	ICLN-02200-SB0	IC MOTOR DRIVER BA6229 SIP10
40	ICMP-00200-S20	IC μCOMPUTER UPD6122G-001 SOP24
41	ICMP-00730-SG0	IC DOLBY SUR-DECODER NJM-2177AF QFP64
42	ICMP-01213-S90	IC μCOMPUTER M38184M8 169FP QFP100
43	ICOP-00133-SG0	IC DUAL OP AMP NJM4558D DIP8
44	ICOP-00135-SG0	IC DUAL OP AMP NJM4558L SIP8
45	ICOP-00430-SG0	IC LOW NOISE DUAL OP NJM2068L SIP8
46	ICOP-00433-SG0	IC OP AMP NJM2068LD SIP8
47	* KIBK-00180-E40	COIL-AUDIO CHOCK LF-40-102 102μH
48	KIRO-00310-E60	COIL-REC OSC ARO-031 7mm CAN
49	KTRE-00091-040	RESONATOR CST4.00MGW-TF01 T05
50	KTRE-00161-060	RESONATOR CST6.00MGW-TF01
51	KTRE-00260-160	RESONATOR [AX-705K only] CST16.00MXW OC1
52	KTRE-00271-004	RESONATOR ZTB455ET2 L-TYPE
53	* PTAN-02410-S30	TRANSFORMER POWER C1042U 115/230V 50/60Hz [U/Y version]
54	* PTAN-02410-Y3A	TRANSFORMER POWER C1042E 230V 50Hz [E/B/V version]
55	* PTAN-02410-Z3A	TRANSFORMER POWER C1042S 240V 50Hz [S version]
56	RFUT-F100G-001	RESISTOR-FUSIBLE ERD2FCV 10R0G 1/4W 10ohm
57	RFUT-F101G-001	RESISTOR-FUSIBLE ERD2FCV 1000G 1/4W 100ohm
58	SKAO-00140-MS9	AC IN LET CCT2302-0381 2P
59	SKPH-00380-360	SOCKET PHONE HSJ1406-01-010 3.5PT

Ref. No.	Part No.	Description
60	SKPH-00390-360	SOCKET PHONE HSJ3000-01-010 3.5PT
61	SKRC-00480-041	SOCKET-RCA JE0400600N 4P
62	SKRC-00481-041	SOCKET-RCA JE0400600YN 4P
63	SKRC-00490-010	SOCKET-RCA JC010126BN 1P
64	SWLF-00161-AS0	SWITCH-LEAF LSA-2127E
65	SWTA-00350-060	SWITCH-TACT SKHV10906A
66	TESP-00010-08P	TERMINAL SPEAKER AU8-2021
67	TRSB-00240-S30	TRANSISTOR P-L FREQ 2SB1375 TO-220FN
68	TRSD-00360-S30	TRANSISFOR N-L FREQ 2SD2353 TO-220FN
69	TRSD-00370-S30	TRANSISTOR N-L FREQ 2SD2012 TO-220FN
70	TRTA-0040Y-SOS	TRANSISTOR P-H FREQ DTA114Y-S W/RESIST TO92M
71	TRTA-0041E-SOS	TRANSISTOR P-H FREQ DTA144E-S W/RESIST TO92M
72	TRTA-0043E-SOS	TRANSISTOR P-H FREQ DTA114E-S W/RESIST TO92M
73	TRTA-0050J-SOS	TRANSISTOR P-H FREQ DTA123J-S W/RESIST TO92M
74	TRTA-0056T-SOS	TRANSISTOR P-H FREQ DTA114T-S W/RESIST TO92M
75	TRTA-0067G-SD0	TRANSISTOR P-H FREQ KTA1267-GR TO92M
76	TRTB-00170-SB0	TRANSISTOR P-L FREQ 2SB1425 T103 TO92L
77	TRTC-0060E-SOS	TRANSISTOR N-H FREQ DTC144E-S TO92M
78	TRTC-0062E-SOS	TRANSISTOR N-H FREQ DTC114E-S W/RESIST TO92M
79	TRTC-0064E-SOS	TRANSISTOR N-H FREQ DTC143E-S W/RESIST TO92M
80	TRTC-0070Z-SOS	TRANSISTOR N-H FREQ DTC143Z-S W/RESIST TO92M
81	TRTC-0074T-SOS	TRANSISTOR N-H FREQ DTC143T-S W/RESIST TO92M
82	TRTC-0075T-SOS	TRANSISTOR N-H FREQ DTC114T-S W/RESIST TO92M
83	TRTC-0094G-SOS	TRANSISTOR N-H FREQ KTC3199-GR TO92M
84	TRTC-01260-S10	TRANSISTOR N-H FREQ 2SC3331 TO92
85	TRTC-01270-S10	TRANSISTOR N-H FREQ 2SC3576 SPA
86	TRTC-01320-S30	TRANSISTOR N-H FREQ 2SC4682 TO92L
87	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92
88	TRTK-0012G-S30	FET N-CHANNEL 2SK372GR/BR
89	VFEB-A019B-102	RESISTOR-SEMI FIXED EVN DCA A03B 1Kohm
90	VFEB-A019B-222	RESISTOR-SEMI FIXED EVN DCA A03B 2.2Kohm
91	VFEB-A019B-473	RESISTOR-SEMI FIXED EVN DCA A03 47K
92	VRAD-M038A-503	ROTARY VR RK11K1140 50KB
93	VWBD-E016A-104	VR-W/MOTOR RK16814MG (100K × 4)



2. DECK MECHA

DECK MECHA CMAL2Z059A (PLAY)

Ref. No.	Part No.	Description
	DECA-00400-00E	DECK MECHA CMAL2Z031A (PLAY)
03-1	ADCA-00400-003	PLATE HD BLK F513-745
04	ADCA-00400-004	MTR MAIN BLK F525-304
05-1	ADCA-00400-005	PCB CONTROL BLK F567-562
06	ADCA-00400-006	FLYWHEEL BLK F522-030
25	ADCA-00400-025	BELT MAIN FF17G-31
29	ADCA-00400-029	FLYWHEEL BLK F522-031
31	ADCA-00400-031	ROLLER PINCH BLK R F514-118
32	ADCA-00400-032	ROLLER PINCH BLK L F514-119
42	ADCA-00400-042	F/R BELT FF18W-11

DECK MECHA CMAL2Z058A (REC/PLAY)

	DECA-00410-00E	DECK MECHA CMAL2Z032A (REC/PLAY)
04	ADCA-00400-004	MTR MAIN BLK F525-304
06	ADCA-00400-006	FLYWHEEL BLK F522-030
25	ADCA-00400-025	BELT MAIN FF17G-31
29	ADCA-00400-029	FLYWHEEL BLK F522-031
31	ADCA-00400-031	ROLLER PINCH BLK R F514-118
32	ADCA-00400-032	ROLLER PINCH BLK L F514-119
42	ADCA-00400-042	F/R BELT FF18W-11
03-2	ADCA-00410-003	PLATE HD BLK F513-746
05-2	ADCA-00410-005	PCB CONTROL BLK F567-563

3. PC BOARD BLOCK

Ref. No.	Part No.	Description
1	A2CC-F2000-A2E	MAIN PCB (AX-700 [E/S version])
	A2CC-F2001-A2Z	MAIN PCB(AX-705K [U/Y version])
2	A2CC-F2000-A3E	PRE PCB (AX-700 [E version])
	A2CC-F2001-A3Z	PRE PCB(AX-705K [U/Y version])
3	A2CC-F2000-A4E	OPERATION PCB [E/S/U/Y version]

4. PCB(#)-PRE MAIN (A1U-341A)

Ref. No.	Part No.	Description
D301	DDTR-00040-T10	DIODE-RECTIFIER 1N4004(400V 1A) DO-41T
D202	DDTS-00060-SO0	DIODE-SI
D203		1SS131 (90V 0.13A) DO-40 T
D204		
D205		
D206		
D207		
D209		
D302		
D304		
D305		
D306		
D501		
D502		
D504		
D505		
D303	DDTZ-U055A-SA0	DIODE ZENER HZS6A-3L 5.4-5.7 DO34 T
F801	* FGFB-S1252-137	FUSE GLASS
F802		1.25A 250V FST034.3118 T
IC302	ICCM-00230-SR0	IC 1KBIT CMOS EEPROM ST24C01CB1 DIP8
IC107	ICCM-00240-S30	IC VOLUME
IC601		TC9299P DIP16
IC203	ICCM-00250-S10	IC CMOS LSI LC7527E QFP64E
IC303	ICCM-20540-SQ0	IC HEX INVERTER GD74LS05 DIP14
IC501	ICCM-20830-SA0	IC 2 INPUT NAND GATE HD74HCOOP DIP14
IC502	ICDG-01460-S90	IC 1CHIP DIGITAL M65843P DIP24
IC405	ICDG-01490-S90	DIGITAL ECHO IC [AC-705K only] M65840SP
IC202	ICLN-01910-SB0	IC LINEAR BA3826S DIP18
IC108	ICLN-01940-TC0	IC SHIFT/STORE RESIS
IC603		MC14094BCP DIP16
IC604		
IC101	ICLN-01950-TC0	IC 8CH MUX/DEMUX
IC102		MC10451BCP DIP16
IC408	ICLN-01960-TC0	IC 4CH MUX/DEMUX MC14052BCP DIP16
IC402		[AX-705K only]
IC109	ICLN-01970-TC0	IC QUAD SWITCH MC14066BCP DIP14
IC103	ICLN-01980-TC0	IN ANALOG MUX/DEMUX
IC104		MC14053BCP DIP16
IC106		
IC407		[AX-705K only]
IC602	ICMP-00730-SG0	IC DOLBY SUR-DECODER NJM-2177AF QFP64
IC301	ICMP-01213-S90	IC μCOMPUTER M38184M8-169FP QFP100
IC105	ICOP-00135-SG0	IC DUAL OP AMP
IC201		NJM4558L SIP8
IC204		
IC404		
IC401		[AX-705K only]
L0801	* KIBK-00180-E40	COIL AUDIO CHOCK LF-4D-102 102μH
P11	KNCW-00891-GT9	CONNECT WAFER TKC-V24P-A1 24P
P12	KNCW-00891-OT9	CONNECT WAFER TKC-V16P-A1 16P
J401	KNCW-00900-HS0	CONNECT WAFER CFG1117-0101 1.5MM
X302	KTRE-00161-060	RESONATOR CST6.00MGW TF01
X401	KTRE-00260-160	RESONATOR [AX-705K only] CST16.00MXW OC1
IB302	NERT-J0016-472	NETWORK-RESISTOR RGLE6T 4.7K 6P
IB303	NERT-J0017-472	NETWORK-RESISTOR RGLE7T 4.7K 7P
IB301	NERT-J0018-472	NETWORK-RESISTOR RGLE8T 4.7K 8P
FR301	RFUT-F101G-001	RESISTOR-FUSIBLE
FR302		ERD2FCV 1000G 1/4W 100ohm
J801	SKAO-00140-MS9	AC IN LET CCT2302-0381 2P
J101	SKRC-00480-041	SOCKET-RCA
J102		JE0400600N 4P
J103	SKRC-00481-041	SOCKET-RCA JE0400600YN 4P
TR313	TRTA-0040Y-SOS	TRANSISTOR P-H FREQ DTA114Y-S W/RESIST TO92M
TR105	TRTA-0041E-SOS	TRANSISTOR P-H FREQ
TR106		DTA144E-S W/RESIST TO92M
TR302		
TR308		
TR310		
TR312		
TR318	TRTA-0043E-SOS	TRANSISTOR P-H FREQ DTA114E-S W/RESIST TO92M
TR601	TRTA-0056T-SOS	TRANSISTOR P-H FREQ
TR602		DTA114T-S W/RESIST TO92M
TR101	TRTA-0067G-SD0	TRANSISTOR P-H FREQ
TR104		KTA1267-GR TO92M
TR304		
TR305		
TR102	TRTC-0060E-SOS	TRANSISTOR N-H FREQ
TR103		DTC144E-S TO92M
TR301		
TR317	TRTC-0062E-SOS	TRANSISTOR N-H FREQ DTC114E-S W/RESIST TO92M
TR501	TRTC-0075T-SOS	TRANSISTOR N-H FREQ
TR502		DTC114T-S W/RESIST TO92M

Ref. No.	Part No.	Description
TR503		
TR504		
TR505		
TR506		
TR508		
TR509		
TR510		
TR511		
TR603		
TR604		
TR605		
TR306	TRTC-0094G-SOS	TRANSISTOR N-H FREQ
TR307		KTC3199-GR TO92M
TR402		
TR316	TRTC-01260-S10	TRANSISTOR N-H FREQ
		2SC3331 TO92
TR314	TRTC-01270-S10	TRANSISTOR N-H FREQ
TR315		2SC3576 SPA

5. PCB(#)-PRE FLD (A1U-341B)

Ref. No.	Part No.	Description
D901	DDTS-00060-SO0	DIODE-SI
D902		1SS131 (90V 0.13A) DO-40 T
D903		
IN901	DPFL-00450-00E	DISPLAY FLUORESCENT
		BJ359GK EQ
IC901	ICCM-00220-U50	IC CMOS DRIVER
		MN12510F QFP44P
X901	KTRE-00091-040	RESONATOR
		CST4.00MGW-TF01 T05
TS901	SWTA-00350-060	SWITCH-TACT
TS902		SKHV10906A
TS903		
TS904		
TS905		
TS906		
TS907		
TS908		
TS909		
TS910		
TS911		
TS912		
TS913		
TS914		
TS915		

6. PCB(#)-OPERATION (A2U-167A)

Ref. No.	Part No.	Description
D801	DPLT-00670-MC3	DOT-LED
D802		SLH-38MC3 GRN 3.1PT
D803	DPLT-00680-UY3	DOT-LED
D804		SEL2913K ORG
IC801	ICLN-01940-TC0	IC SHIFT/STORE RESIS
		MC14094BCP DIP16
J12	KNCW-00890-GT9	CONNECT WAFER
		TKC-V16X-A1
J11	KNCW-00890-OT9	CONNECT WAFER
		TKC-V24X-A1
TS801	SWTA-00350-060	SWITCH-TACT
TS802		SKHV10906A
TS803		
TS804		
TS805		
TS806		
TS807		
TS808		
TS809		
TS810		
TS811		
TS812		
TS813		
TR801	TRTC-0064E-SOS	TRANSISTOR N-H FREQ
TR802		DTC143E-S W/RESIST TO92M
TR803		
TR804		

7. PCB(#)-DECK MECHA DRIVE (A2U-167B)

Ref. No.	Part No.	Description
D820	DDTS-00060-SO0	DIODE-SI
D821		1SS131 (90V 0.13A) DO-40 T
D822	DDTZ-U065A-SA0	DIODE ZENER
		HZS7A-1L 6.3-6.6 DO34 T
IC811	ICLN-02200-SB0	IC MOTOR DRIVER
IC812		BA6229 SIP10
TR818	TRTA-0067G-SD0	TRANSISTOR P-H FREQ
TR820		KTA1267-GR TO92M
TR824		
TR826		
TR812	TRTB-00170-SB0	TRANSISTOR P-L FREQ
TR814		2SB1425 T103 TO92L
TR816		
TR817	TRTC-0060E-SOS	TRANSISTOR N-H FREQ
TR819		DTC144E-S TO92M
TR823		
TR825		
TR811	TRTC-0064E-SOS	TRANSISTOR N-H FREQ
TR813		DTC143E-S W/RESIST TO92M
TR815		
TR821	TRTC-0094G-SD0	TRANSISTOR N-H FREQ
TR822		KTC3199-GR TO92M
VR811	VFEB-A019B-102	RESISTOR-SEMI FIXED
VR813		EVN DCA A03B 1Kohm
VR812	VFEB-A019B-222	RESISTOR-SEMI FIXED
VR814		EVN DCA A03B 2.2Kohm

8. PCB(#)-VR LED (A2U-167C)

Ref. No.	Part No.	Description
D805	DPLT-00690-UY3	DOT-LED
		SEL 6915A ORG

9. PCB(#)-MAIN (A1U-342A)

Ref. No.	Part No.	Description
D285	DDTR-00040-T10	DIODE-RECTIFIER
D286		1N4004(400V 1A) DO-41T
D503		
D504		
D505		
D506		
D507		
D508		
D518		
D519		

Ref. No.	Part No.	Description
D520		
D537		
D538		
D181	DDTS-00060-SO0	DIODE-SI
D201		1SS131 (90V 0.13A) DO-40 T
D202		
D251		
D252		
D281		
D282		
D283		
D284		
D501		
D509		
D522		
D524		
D525		
D526		
D528		
D529		
D530		
D531		
D532		
D533		
D534		
D539		
D540		
D527	DDTZ-U57B-SA0	DIODE ZENER
D535		HZS6B-2L 5.6-5.9 DO34 T
D536		
D510	DDTZ-U065A-SA0	DIODE ZENER
D514		HZS7A-1L 6.3-6.6 DO34 T
D515		
D513	DDTZ-U081A-SA0	DIODE ZENER
D516		HZS9A-2L 7.9-8.3 DO34 T
D517		
D521	DDTZ-U3200-SA0	DIODE ZENER
		HZS30-3L 30.2-31.6 DO34 T
D502	DD4B-00250-SJ0	DIODE BRIDGE
		RBV-402 200V 4A BRIDGE
RL501	ESRY-00130-121	RELAY
		JW2ASN-DC 12V 2POLE
IC301	ICHP-00070-S10	IC HYBRID AMP-POWER
IC302		STK4142 Ⅱ 25W×2 SIP18
IC2	ICLN-01900-SA0	IC TAPE PROCESSOR
		HA12155NT DIP64
IC201	ICLN-01940-TC0	IC SHIFT/STORE RESIS
		MC14094BCP DIP16
IC1	ICOP-00433-SG0	IC OP AMP
IC101		NJM2068LD SIP8
L341	KIBK-00160-E40	COIL-AUDIO CHOCK [AX-700 only]
L342		AM-U41 7.0μH
L301	KIBK-00170-E40	COIL-AUDIO CHOCK
L311		202AK-018A 2.2μH
L321		
L331		
FL1	KIMI-00010-E60	COIL AUDIO IF TRAP
FL51		100Z-121 100KHz
FL201		
FL251		
T201	KIRO-00310-E60	COIL-REC OSC
		ARO-031 7mm CAN
FR501	RFUT-F100G-001	RESISTOR-FUSIBLE
		ERD2FCV 10ROG 1/4W 10ohm
R310	RCMM-JR10K-4A0	RESISTOR-METAL OXIDE
R320		MPR26 2W 0.1K
R330		
R340		
R308	RMOH-H100J-100	RESISTOR-METAL OXIDE
R318		PRO1 1W 10ohm 5% R-SHAPE
R328		
R338		
R555	RMOH-H221J-100	RESISTOR-METAL OXIDE
		PRO1 1W 220ohm 5% R-SHAPE
R345	RMOH-H331J-100	RESISTOR-METAL OXIDE
R346		PRO1 1W 330ohm 5% R-SHAPE
R307	RMOH-H560J-100	RESISTOR-METAL OXIDE
R317		PRO1 1W 56ohm 5% R-SHAPE
R327		
R337		
R503	RMOR-CR33J-0C0	RESISTOR-METAL OXIDE
R504		ERX12SE 1/2W 5% 0.33ohm
R505		
R506		
R518	RMOR-CR047J-0C0	RESISTOR-METAL OXIDE
		ERX12SE 1/2W 5% 0.47ohm
R507	RMOR-CR047J-000	RESISTOR-METAL OXIDE
R546		ERX12SE 1/2W 5% 1ohm
R547		
R548		
R549		
R343	RMOR-G100J-190	RESISTOR-METAL OXIDE
R344		ERX12SJ 1/2W 5% 10ohm
J301	SKPH-00390-360	SOCKET PHONE
		HSJ3000-01-010 3.5PT
J302	SKRC-00490-010	SOCKET-RCA
		JC010126BN 1P
TM301	TESP-00010-08P	TERMINAL SPEAKER
		AU8-2021
TR510	TRSB-00240-S30	TRANSISTOR P-L FREQ
TR515		2SB1375 TO-220FN
TR518		
TR504	TRSD-00360-S30	TRANSISTOR N-L FREQ
		2SD2353 TO220FN
TR507	TRSD-00370-S30	TRANSISTOR N-L FREQ
		2SD2012 TO220FN
TR41	TRTA-0050J-SOS	TRANSISTOR P-H FREQ
TR42		DTA123J-S W/RESISTOR TO92M
TR43		
TR513	TRTA-0056T-SOS	TRANSISTOR P-H FREQ
		DTA114T-S W/RESISTOR TO92M
TR281	TRTA-0067G-SD0	TRANSISTOR P-H FREQ
TR501		KTA1267-GR TO92II
TR508		
TR517		
TR519		
TR526		
TR527		
TR528		
TR529		
TR511	TRTC-0060E-SOS	TRANSISTOR N-H FREQ
TR512		DTC144E-S TO92M
TR520		
TR530		
TR531		

Ref. No.	Part No.	Description
TR532		
TR506	TRTC-0064E-SOS	TRANSISTOR N-H FREQ DTC143E-S W/RESIST TO92M
TR1	TRTC-0070Z-SOS	TRANSISTOR N-H FREQ
TR51		DTC143Z-S W/RESIST TO92M
TR2	TRTC-0074T-SOS	TRANSISTOR N-H FREQ
TR3		DTC143T-S W/RESIST TO92M
TR4		
TR52		
TR53		
TR54		
TR103		
TR104		
TR153		
TR154		
TR302	TRTC-0075T-SOS	TRANSISTOR N-H FREQ
TR312		DTC114T-S W/RESIST TO92M
TR322		
TR332		
TR514		
TR521		
TR522		
TR523		
TR524		
TR21	TRTC-0094G-SD0	TRANSISTOR N-H FREQ
TR22		KTC3199-GR TO92M
TR23		
TR71		
TR72		
TR73		
TR102		
TR152		
TR502		
TR509		
TR282	TRTC-01260-S10	TRANSISTOR N-H FREQ
TR283		2SC3331 TO92
TR505	TRTC-01320-S30	TRANSISTOR N-H FREQ
		2SC4682 TO92L
TR301	TRTD-00200-SD0	TRANSISTOR N-L FREQ
TR311		KTD-1302 TO92
TR321		
TR331		
TR101	TRTK-0012G-S30	FET N-CHANNEL
TR151		2SK372GR/BR
VR2	VFEB-A001B-103	RESISTOR-SEMI FIXED
VR52		EVN DXA A03 B 10Kohm
VR1	VFEB-A019B-102	RESISTOR-SEMI FIXED
VR51		EVN DCA A03 B 1Kohm
VR101		
VR151		
VR201	VFEB-A019B-473	RESISTOR-SEMI FIXED
VR251		EVN DCA A02 47K

10. MOTOR VR & SUPER BASS AMP (A1U-342B)

Ref. No.	Part No.	Description
IC601	ICOP-00430-SG0	IC LOW NOISE DUAL OP
IC602		NJM2068L SIP8
IC603		
TR601	TRTC-0094G-SD0	TRANSISTOR N-H FREQ
TR651		KTC3199-GR TO92M
VR601	VWBD-E016A-104	VR-W/MOTOR
		RK16814MG (100K × 4)

11. MIC JACK & MIC AMP (A1U-342C)

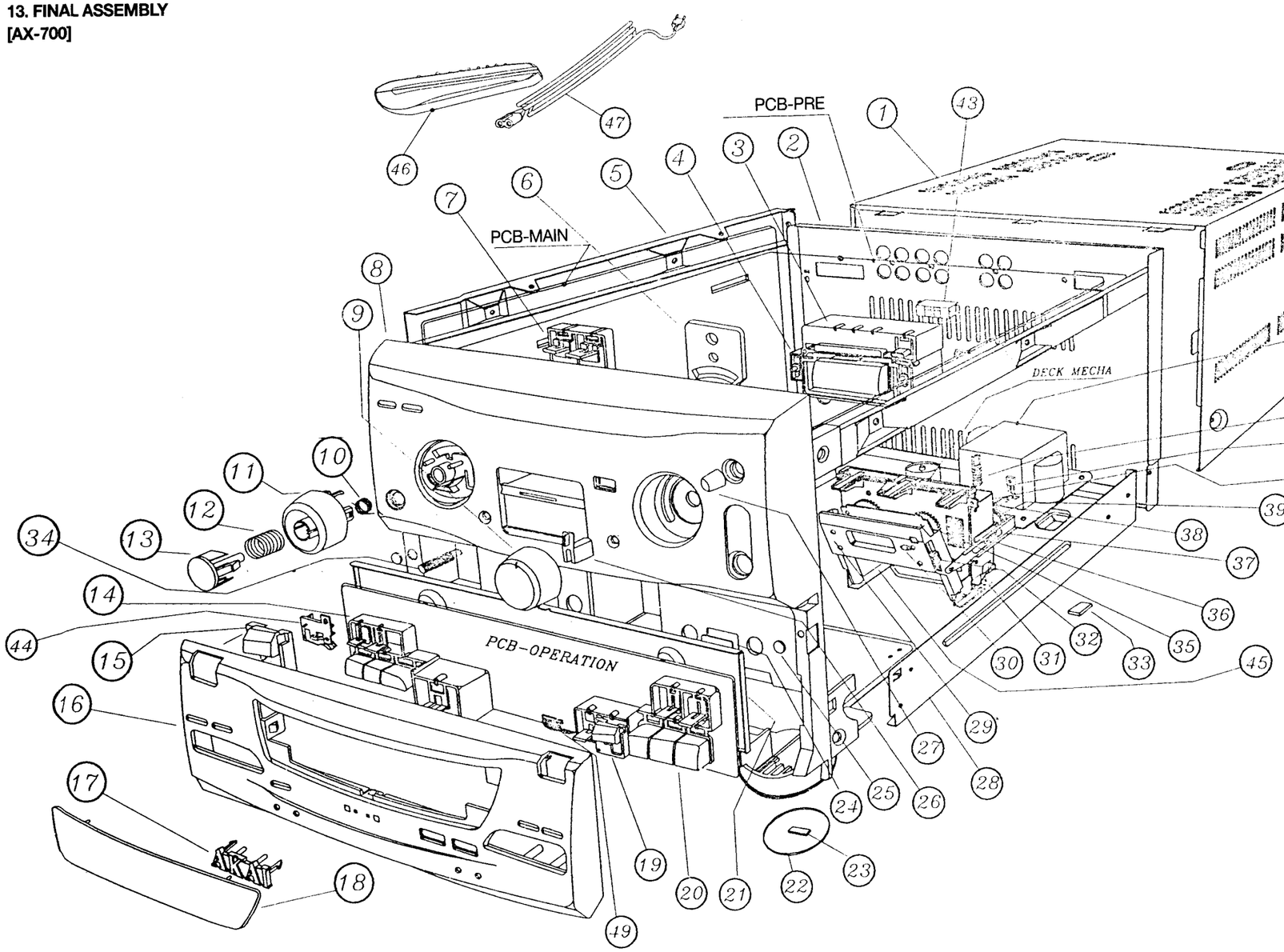
Ref. No.	Part No.	Description
IC701	ICOP-00133-SG0	IC DUAL OP AMP
		NJM4558D DIP8
J701	SKPH-00380-360	SOCKET PHONE
J702		HSJ1406-01-010 3.5PT
VR701	VRAD-M038A-503	ROTARY VR
		RK11K1140 50KB

12. REMOCON UNIT

Ref. No.	Part No.	Description
ID1	DPIR-00021-005	DOT-IR LED
		KLN105B-B
IC1	ICMP-00220-S20	IC μCOMPUTER
		UPD6122G-001 SOP24
CX1	KTRE-00271-004	RESONATOR
		ZTB455ET2 L-TYPE

EXPLODED VIEW

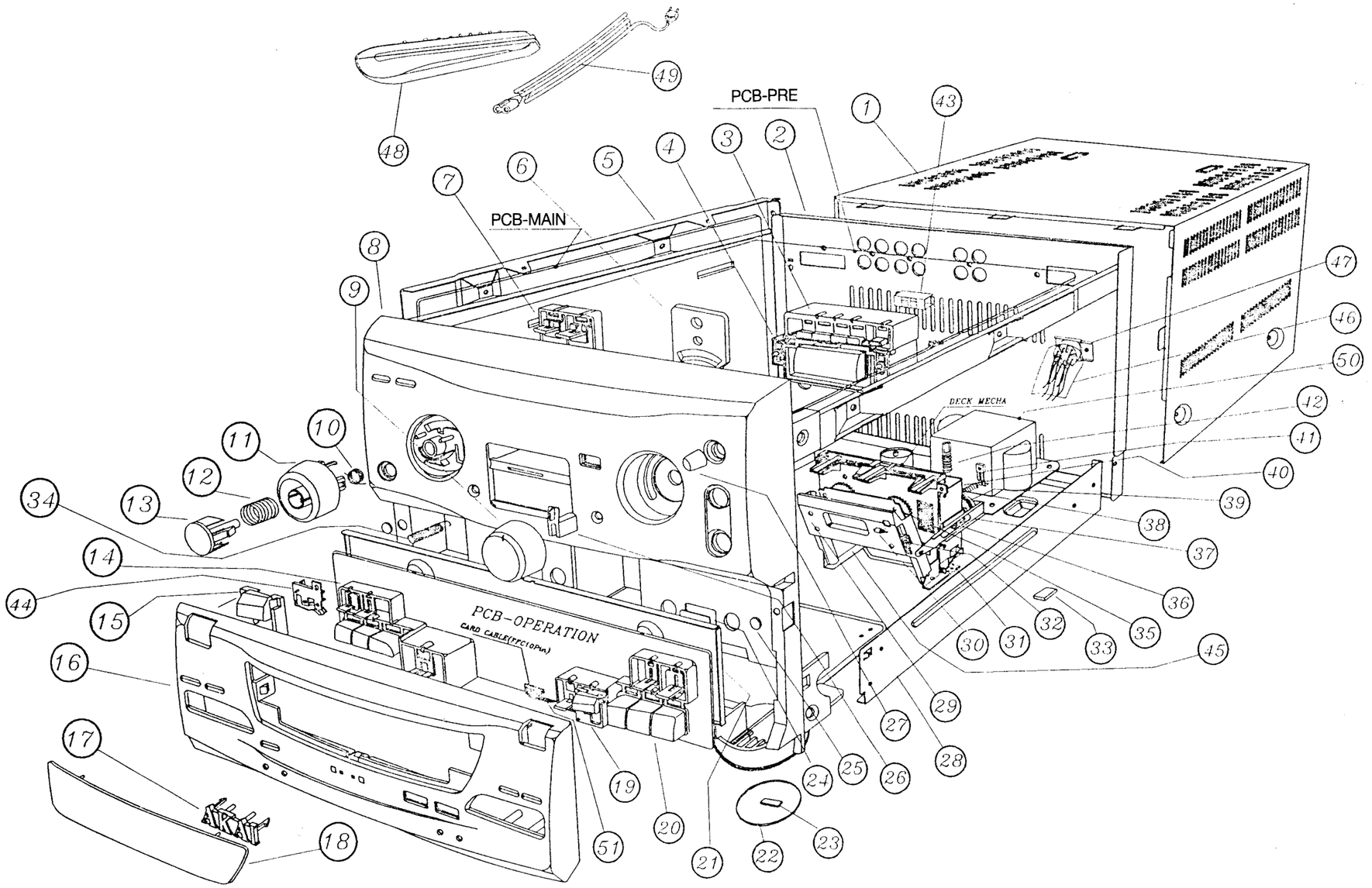
13. FINAL ASSEMBLY
[AX-700]



Ref. No.	Part No.	Description
1	MPAC-04010-ZZ1	COVER-UPPER
2A	MPAC-04021-ZZ1	PANEL-REAR AX-700 [E, B]
2B	MPAC-04023-ZZ1	PANEL-REAR AX-700 [S]
3	MJAF-02580-ZZ2	BUTTON-POWER(2)
4	MJAF-02510-ZZ2	BUTTON-BASS
5	MPAC-04020-003	CHASSIS-SIDE
6	MJAG-01370-003	HOLDER-SHAFT
7	MJAF-02540-ZZ2	BUTTON-SURROUND
8	MJAF-04041-ZZ1	PANEL-FRONT AX-700
9	MJAF-05560-ZZ3	KNOB-VOLUME
10	MMAC-13680-004	SP-TORSION EQ
11	MJAF-05540-ZZ3	KNOB-EQ
12	MMAC-13690-004	SP-PUSH MODE
13	MJAF-05550-ZZ3	BUTTON-MODE
14	MJAF-04000-ZZ1	BUTTON-OP(L)
15	MJAF-02520-ZZ2	BUTTON-EJECT(L)
16	MJAF-04030-ZZ1	DOOR
17	MJAF-05530-ZZ3	NAME-PLATE AKAI
18	MAAF-03960-ZZ1	WINDOW-FLD AX
19	MJAF-02530-ZZ2	BUTTON-EJECT(R)
20	MJAF-03990-ZZ1	BUTTON-OP(R)
21	MPAC-03510-ZZ2	COVER-DOOR
22	MMAC-13670-ZZ4	RING-FOOT
23	MRAG-11130-004	CUSHION-FOOT
24	MGAF-04940-ZZ4	REFLECTOR-TAPE
25	MRAG-10960-004	CUSHION-DOOR
26	MJAF-05580-ZZ3	LENS-VOLUME
27	MJAF-05570-ZZ3	KNOB-MIX
28	MPAC-03940-001	CHASSIS
29	MJAG-03950-001	HOLDER-CASSETTE
30	MJAF-11550-004	ROLLER
31	MMAC-13760-004	SP-TORSION EJECT
32	MMAC-13750-004	SP-PUSH CASSETTE
33	MRAG-10920-004	CUSHION-FOOT REAR
34	MMAC-13700-004	SP-PULL DOOR
35	MPAC-13730-004	PLATE-LID
36	MJAG-01380-003	PLATE-EJECT
37	MPAC-03510-003	ARM-EJECT
38	MMAC-13740-004	SP-PUSH CAM GEAR
39	MJAG-00340-002	CAM GEAR-EJECT
40	MPAC-03490-002	CHASSIS-MECHA SIDE(R) PART
41	SWLF-00161-AS0	SWITCH-LEAF
42	MJAG-01390-004	WORM
43	MGAG-11350-004	REFLECTOR-LED
44	MJAG-00350-002	GEAR-DAMPER
45	MPAC-03500-002	CHASSIS-MECHA SIDE(L)
46	A2RC-F2000-01E	REMOCON RC-S700
47A	ACAC-00302-000	AC-CORD [E]
47B	ACAC-00292-000	AC-CORD [S]
48A	PTAN-02410-Y3B	POWER-TRANS[E]
48B	PTAN-02410-Z3A	POWER-TRANS[S]
49	LLA3-10301-G20	CARD-CABLE

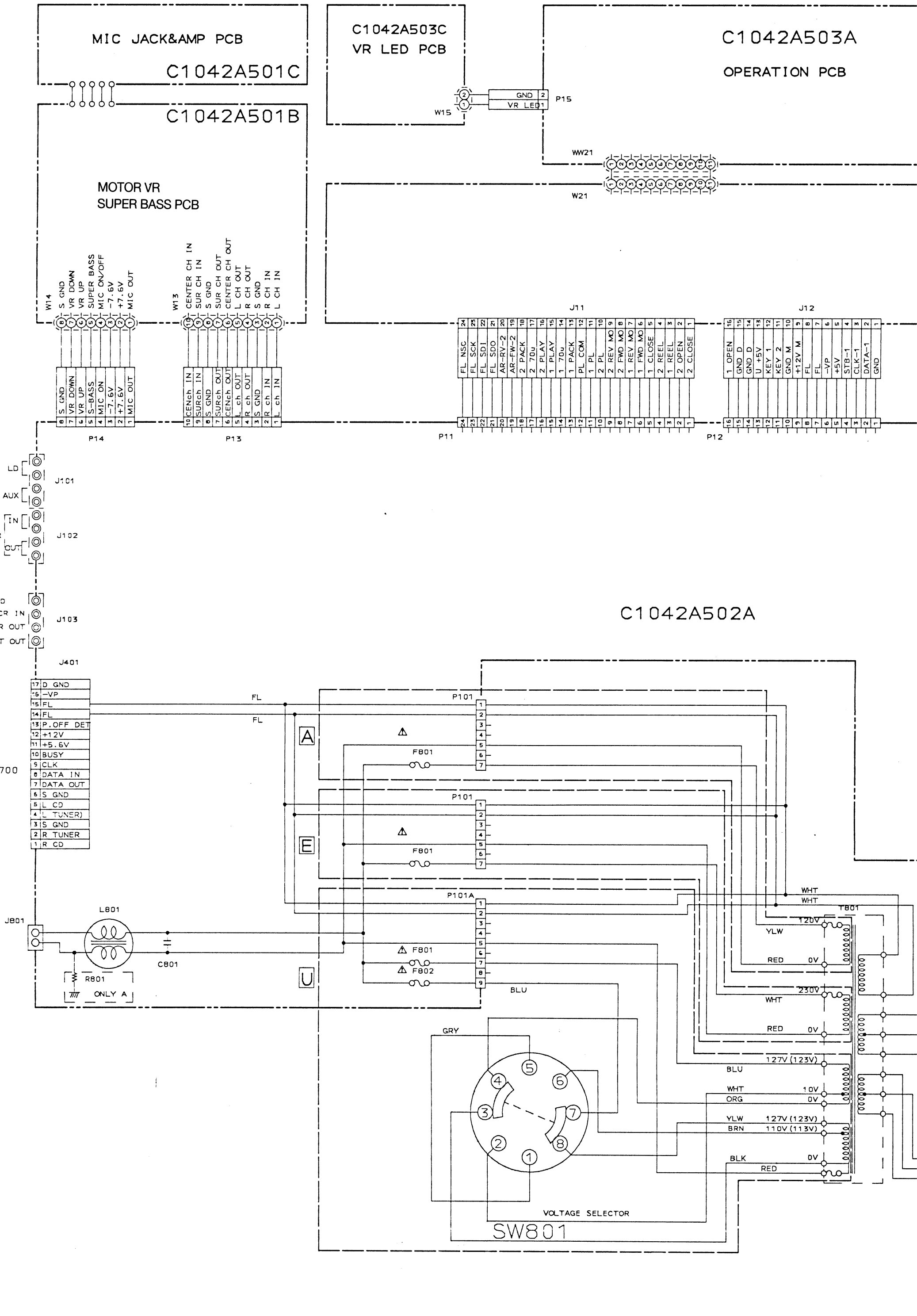
EXPLODED VIEW

[AX-705K]



Ref. No.	Part No.	Description
1	MPAC-04010-ZZ1	COVER-UPPER
2A	MPAC-04020-ZZ1	PANEL-REAR AX-705K [U]
2B	MPAC-04022-ZZ1	PANEL-REAR AX-705K [Y7]
3	MJAF-02570-ZZ2	BUTTON-POWER(1)
4	MJAF-02510-ZZ2	BUTTON-BASS
5	MPAC-04020-003	CHASSIS-SIDE
6	MJAG-01370-003	HOLDER-SHAFT
7	MJAF-02540-ZZ2	BUTTON-SURROUND
8	MJAF-04040-ZZ1	PANEL-FRONT AX-705K
9	MJAF-05560-ZZ3	KNOB-VOLUME
10	MMAC-13680-004	SP-TORSION EQ
11	MJAF-05540-ZZ3	KNOB-EQ
12	MMAC-13690-004	SP-PUSH MODE
13	MJAF-05550-ZZ3	BUTTON-MODE
14	MJAF-04000-ZZ1	BUTTON-OP(L)
15	MJAF-02520-ZZ2	BUTTON-EJECT(L)
16	MJAF-04030-ZZ1	DOOR
17	MJAF-05530-ZZ3	NAME-PLATE AKAI
18	MAAF-03960-ZZ1	WINDOW-FLD AX
19	MJAF-02530-ZZ2	BUTTON-EJECT(R)
20	MJAF-03990-ZZ1	BUTTON-OP(R)
21	MPAC-03510-ZZ2	COVER-DOOR
22	MMAC-13670-ZZ4	RING-FOOT
23	MRAG-11130-004	CUSHION-FOOT
24	MGAF-04940-ZZ4	REFLECTOR-TAPE
25	MRAG-10960-004	CUSHION-DOOR
26	MJAF-05580-ZZ3	LENS-VOLUME
27	MJAF-05570-ZZ3	KNOB-MIX
28	MPAC-03940-001	CHASSIS
29	MJAG-03950-001	HOLDER-CASSETTE
30	MJAF-11550-004	ROLLER
31	MMAC-13760-004	SP-TORSION EJECT
32	MMAC-13750-004	SP-PUSH CASSETTE
33	MRAG-10920-004	CUSHION-FOOT REAR
34	MMAC-13700-004	SP-PULL DOOR
35	MPAC-13730-004	PLATE-LID
36	MJAG-01380-003	PLATE-EJECT
37	MPAC-03510-003	ARM-EJECT
38	MMAC-13740-004	SP-PUSH CAM GEAR
39	MJAG-00340-002	CAM GEAR-EJECT
40	MPAC-03490-002	CHASSIS-MECHA SIDE(R) PART
41	SWLF-00161-AS0	SWITCH-LEAF
42	MJAG-01390-004	WORM
43	MGAG-11350-004	REFLECTOR-LED
44	MJAG-00350-002	GEAR-DAMPER
45	MPAC-03500-002	CHASSIS-MECHA SIDE(L)
46	ZUVC-32006-501	TUBE INSULATION
47	SWVS-00110-SA9	SWITCH-VOLTAGE SEL
48	A2RC-F2000-01E	REMOCON RC-S700
49	ACAC-00302-000	AC-CORD
50	PTAN-02410-S30	POWER-TRANS
51	LLA3-10301-G20	CARD CABLE

VI. WIRING DIAGRAM



503A

N PCB

C1042A503B

DECK MECHA DRIVER PCB

P20
5 +
4 –
3 2 OPEN
2 COMMON
1 2 CLOSE

P19
5 +
4 –
3 1 OPEN
2 COMMON
1 CLOSE

J16: GND SDO SDI SCK NCS +5V –VP FL FL GND (10 9 8 7 6 5 4 3 2 1)

J116: GND SDO SDI SCK NCS +5V –VP FL FL GND (1 2 3 4 5 6 7 8 9 10)

W17
1 PACK
1 CrO2
1 +SOL (PLUNGER)
1 SENSOR OUT
+5V
1 PLAY SW
+12V
–COMMON
1 MTR SPEED B
1 MTR SPEED A

W18
REV REC
N.C
FWD REC
2 PACK
2 CrO2
2 +SOL (PLUNGER)
2 SENSOR OUT
+5V
2 PLAY SW
+12V
–COMMON
2 MTR SPEED B
2 MTR SPEED A

J12: FL FL –VP +5V STB–1 CLK–1 DATA–1 GND (8 7 6 5 4 3 2 1)

PRE FLD PCB

C1042A502B

C1042A501A

uCOM
PRE AMP
Dolby SURROUND
G.EQ
V.SELECTOR
KARAOKE

PRE MAIN PCB

J4
12 OSC PWM
11 STB–2
10 DATA–2
9 CLK–2
8 STB (DOL)
7 CLK (DOL)
6 DATA (DOL)
5 POWER ON
4 PACK MUTE
3 RE IN MU
2 PB MUTE
1 REC MUTE

W4
12 OSC PWM
11 STB–2
10 DATA–2
9 CLK–2
8 STB (DOLBY)
7 CLK (DOLBY)
6 DATA (DOLBY)
5 POWER ON/OFF
4 PACK MUTE
3 REC IN MUTE
2 PB MUTE
1 REC MUTE

J3
12 PB O Rch
11 RE I Rch
10 RE I Lch
9 PB O Lch
8 GND (DECK)
7 Lch IN
6 Rch IN
5 CEN IN
4 SUR IN
3 GND (VR)
2 FRT MUTE
1 SUR MUTE

W3
12 PB OUT Rch (DECK)
11 REC IN Rch (DECK)
10 REC IN Lch (DECK)
9 PB OUT Lch (DECK)
8 GND (DECK)
7 Lch IN (AMP)
6 Rch IN (AMP)
5 CEN IN (AMP)
4 SUR IN (AMP)
3 GND (VR)
2 FRT MUTE
1 SUR MUTE

J2
10 +12V (M)
9 GND (M)
8 GND (D)
7 +5.6V
6 H.PHONE
5 PROTECT
4 METER Lch
3 METER Rch
2 GND (V)
1 +5V

W2
10 +12V (MECHA)
9 GND (MECHA)
8 GND (DIGITAL)
7 +5.6V
6 HAED PHONE DET
5 PROTECT
4 METER Lch
3 METER Rch
2 GND (VIDEO)
1 +5V

J1
10 GND (SIG)
9 +12V (AX)
8 –7.6V
7 +7.6V
6 GND (D/TC)
5 +5.6V (TC)
4 +12V (TC)
3 P.O.DET
2 –VP
1 GND (S/TC)

W1
10 GND (SIGNAL)
9 +12V (AX)
8 –7.6V
7 +7.6V
6 GND (DIGITAL/TC)
5 +5.6V (TC)
4 +12V (TC)
3 POW OFF DET
2 –VP
1 GND (SIGNAL/TC)

J301
HEAD PHONE

TM301
FRT L
FRT R
SUR L
SUR R

J302
CENTER

POWER SUPPLY
POWER AMP
DECK AMP

MAIN PCB

WHT
WHT
T801
120V
0V
230V
0V
23V)
10V
0V
23V)
3V)
0V

YLW
ORG
BLU
BLK
RED
BRN

P7
8 AC PRE
7
6 AC PRE
5
4 AC PRE GND
3 AC MAIN GND
2 AC MAIN
1 AC MAIN

P6
8 ERASE
7 GND
6 PB R
5 REC R
4 GND
3 GND
2 REC L
1 PB L

P5
3 PB R
2 GND
1 PB L

POWER EJECT 1

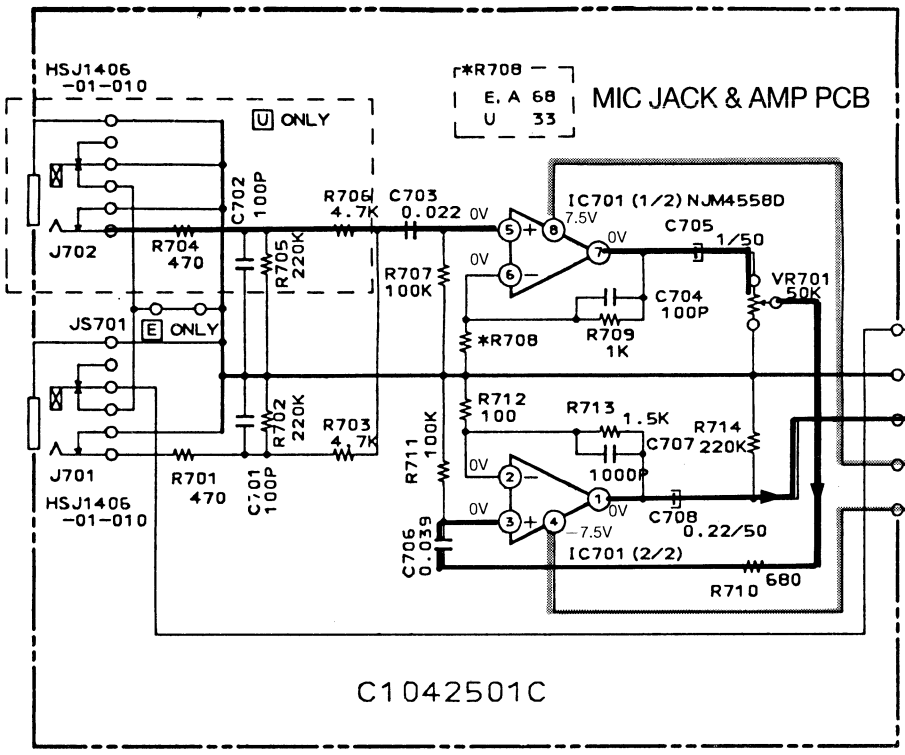
POWER EJECT 2

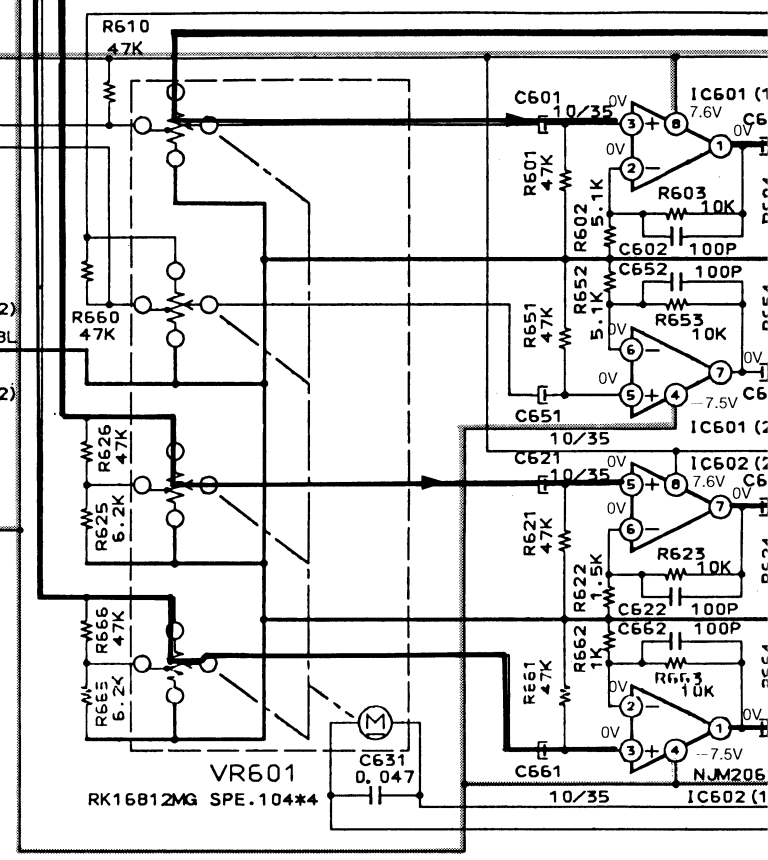
MECHA 1

MECHA 2

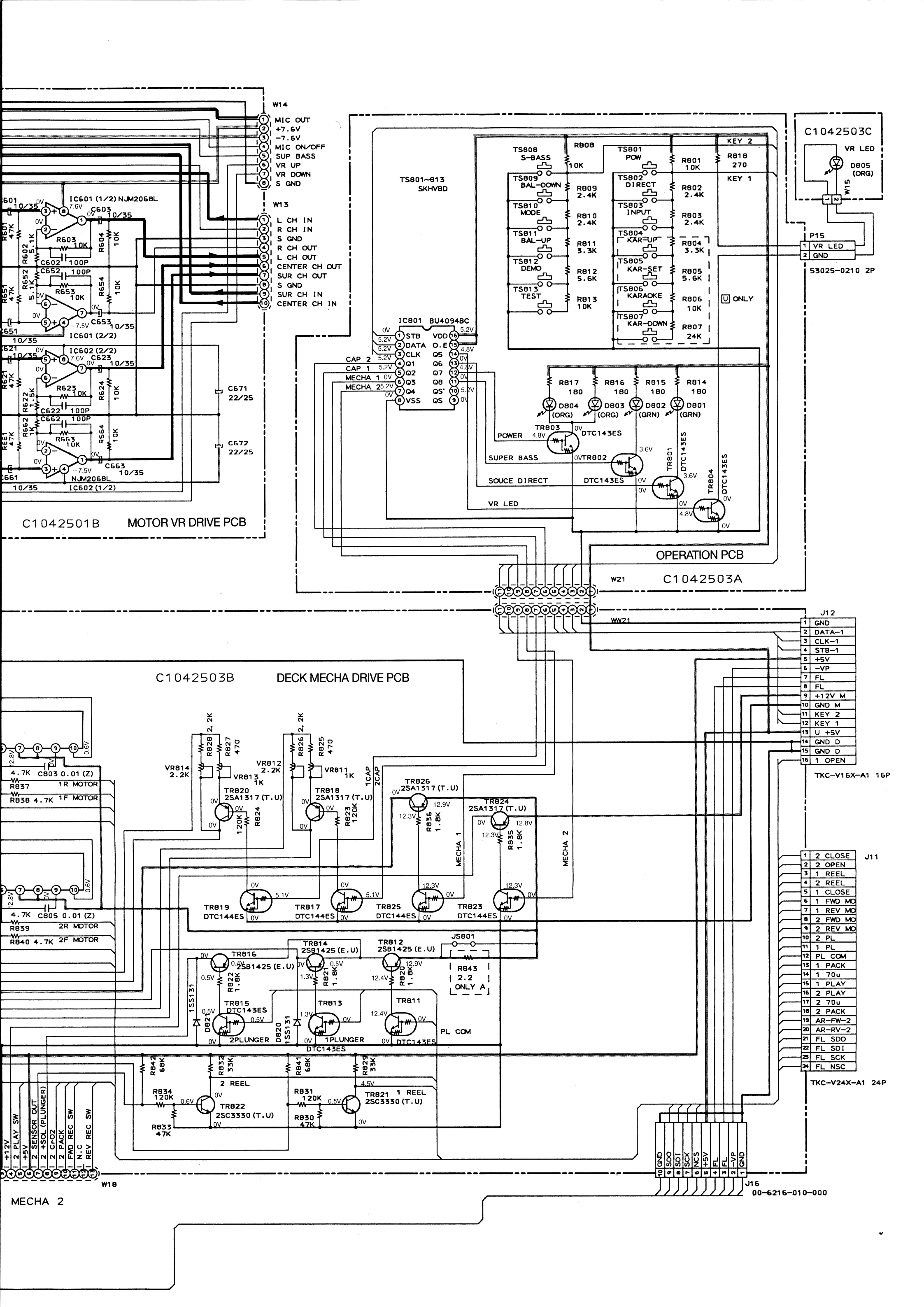
VII. SCHEMATIC DIAGRAM

PC(#)-OPERATION





C1042501B


W14
MIC OUT
+7.6V
-7.6V
MIC ON/OFF
SUP BASS
VR UP
VR DOWN
S GND
W13
L CH IN
R CH IN
S GND
R CH OUT
L CH OUT
CENTER CH OUT
SUR CH OUT
S GND
SUR CH IN
CENTER CH IN
IC601 (1/2) NJM2068L
IC601 (2/2)
IC602 (2/2)
IC602 (1/2)
NJM2068L
C1042501B MOTOR VR DRIVE PCB
TS801~813
SKHVBD
TS808 S-BASS
TS809 BAL-DOWN
TS810 MODE
TS811 BAL-UP
TS812 DEMO
TS813 TEST
TS801 POW
TS802 DIRECT
TS803 INPUT
TS804 KAR-UP
TS805 KAR-SET
TS806 KARAOKE
TS807 KAR-DOWN
R808 10K
R809 2.4K
R810 2.4K
R811 3.3K
R812 5.6K
R813 10K
R801 10K
R802 2.4K
R803 2.4K
R804 3.3K
R805 5.6K
R806 10K
R807 24K
KEY 2
R818 270
KEY 1
U ONLY
IC801 BU4094BC
STB
DATA
CLK
Q1
Q2
Q3
Q4
VSS
VDD
O.E
Q5
Q6
Q7
Q8
QS'
QS
CAP 2
CAP 1
MECHA 1
MECHA 2
R817 180
R816 180
R815 180
R814 180
D804 (ORG)
D803 (ORG)
D802 (GRN)
D801 (GRN)
TR803 DTC143ES
TR802 DTC143ES
TR801 DTC143ES
TR804 DTC143ES
POWER
SUPER BASS
SOUCE DIRECT
VR LED
C1042503C
VR LED
D805 (ORG)
W15
P15
1 VR LED
2 GND
53025-0210 2P
OPERATION PCB
W21
C1042503A
WW21
J12
1 GND
2 DATA-1
3 CLK-1
4 STB-1
5 +5V
6 -VP
7 FL
8 FL
9 +12V M
10 GND M
11 KEY 2
12 KEY 1
13 U +5V
14 GND D
15 GND D
16 1 OPEN
TKC-V16X-A1 16P
C1042503B DECK MECHA DRIVE PCB
C671 22/25
C672 22/25
C803 0.01 (Z)
R837 1R MOTOR
R838 4.7K 1F MOTOR
C805 0.01 (Z)
R839 2R MOTOR
R840 4.7K 2F MOTOR
VR814 2.2K
VR813 1K
VR812 2.2K
VR811 1K
TR820 2SA1317 (T.U)
TR818 2SA1317 (T.U)
TR826 2SA1317 (T.U)
TR824 2SA1317 (T.U)
R836 1.8K
R835 1.8K
TR819 DTC144ES
TR817 DTC144ES
TR825 DTC144ES
TR823 DTC144ES
TR816 2SB1425 (E.U)
TR814 2SB1425 (E.U)
TR812 2SB1425 (E.U)
R822 1.8K
R821 1.8K
R820 1.8K
JS801
R843 2.2 ONLY A
TR815 DTC143ES
TR813
TR811
2PLUNGER
1PLUNGER
PL COM
DTC143ES
1SS131
D821
D820
R842 68K
R832 33K
R841 68K
R829 33K
2 REEL
1 REEL
R834 120K
R833 47K
TR822 2SC3330 (T.U)
R831 120K
R830 47K
TR821 2SC3330 (T.U)
W18
+12V
2 PLAY SW
+5V
2 SENSOR OUT
2 +SOL (PLUNGER)
2 CrO2
2 PACK
FWD REC SW
N.C
REV REC SW
J11
1 2 CLOSE
2 2 OPEN
3 1 REEL
4 2 REEL
5 1 CLOSE
6 1 FWD MO
7 1 REV MO
8 2 FWD MO
9 2 REV MO
10 2 PL
11 1 PL
12 PL COM
13 1 PACK
14 1 70u
15 1 PLAY
16 2 PLAY
17 2 70u
18 2 PACK
19 AR-FW-2
20 AR-RV-2
21 FL SDO
22 FL SDI
23 FL SCK
24 FL NSC
TKC-V24X-A1 24P
J16
10 GND
9 SDO
8 SDI
7 SCK
6 NCS
5 +5V
4 FL
3 FL
2 -VP
1 GND
00-6216-010-000
MECHA 2

SCHEMATIC DIAGRAM

PC(#)-MAIN

No. 1~20, 51~70
R1~8, 51~58
C1~7, 51~57
TR1~3, 51~53
IC1
VR1, 51
FL1, 51

No. 101~120, 151~170
R101~110, 151~160, 181~184
C101~107, 151~157, 181~187
TR101~104, 151~154
D181
IC101
VR101, 151

No. 201~220, 251~270
No. 281~290
R201, 251, 281~284
C201~202, 251~252, 281~286
TR281~283
T201
VR201, 251
FL201, 251
IC201
D201~202, 251~252, 281~286

P5 PH-3P: Lch, GND, Rch
P6 PH-8P: PB Lch, REC Lch, GND, GND, REC Rch, PB Rch, GND, ERASE
P7

IC1 NJM2068L
IC101 NJM2068L
IC201 BU4094BC
IC2 HA12155NT

TR1 DTC143ZS
TR2 DTC143TS
TR3 DTC143TS
TR4 DTC143TS
TR51 DTC143ZS
TR52 DTC143TS
TR53 DTC143TS
TR54 DTC143TS
TR101 2SK372 (GR, BL, Y)
TR102 KTC3199 (GR, BL)
TR103 DTC143TS
TR104 DTC143TS
TR151 2SK372 (GR, BL, Y)
TR152 KTC3199 (GR, BL)
TR153 DTC143TS
TR154 DTC143TS
TR281 KTA1267 (GR, BL)
TR282 2SC3331 (T, U)
TR283 2SC3331 (T, U)
TR21 KTC3199 (GR, BL)
TR71 KTC3199 (GR, BL)
TR501 KTA1267
TR502 KTC3199
TR503 KTA1267
TR504 2SD2353
TR505 2SC4682
TR506 DTC143ES
TR507 2SD2012
TR508 KTA1267
TR509 KTA1267
TR510 2SB1375
TR511 DTC144ES
TR512 DTC144ES
TR513 DTA114TS
TR514 DTC114TS
TR515 2SB1375
TR517 KTA1267
TR518 2SB1375
TR526 KTA1267
TR527 KTA1267
TR528 KTA1267
TR529 KTA1267
TR531 DTC144ES

Q1 7052-1
Q2 7052
Q3 X29B9EAK
Q4 FF MUTE2
Q5 FF MUTE1
Q7 ON/OFF

FL1 100Z-121
FL101 100Z-121
FL201 100Z-121
FL251 100Z-121

RL501 DH2SU

TAPE1 PB LEVEL ADJ Lch
TAPE1 PB LEVEL ADJ Rch
TAPE2 PB LEVEL ADJ Lch
TAPE2 PB LEVEL ADJ Rch
REC LEVEL ADJ Lch
REC LEVEL ADJ Rch
BIAS FREQ ADJ
NORMAL BIAS ADJ Lch
NORMAL BIAS ADJ Rch

TAPE1 PB IN Lch
TAPE2 PB IN Lch
TAPE1 PB IN Rch
TAPE2 PB IN Rch
REC IN Lch
REC IN Rch
PB OUT Lch
PB OUT Rch
REC EQ AMP OUT
POWER ON
OSC PWM OUT
DATA (DOLBY)
CLK (DOLBY)
STB (DOLBY)
E ONLY
METER OUT

FRONT

W1: OSC PWM OUT, STB 2, DATA 2, CLK 2, STB (DOLBY), CLK (DOLBY), DATA (DOLBY), POWER ON, PACK MUTE, REC IN MUTE, PB MUTE, REC MUTE

W2: PB OUT Rch (DECK), REC IN Rch (DECK), REC IN Lch (DECK), PB OUT Lch (DECK), GND (DECK), Lch IN (AMP), Rch IN (AMP), SLOW IN (AMP), SLOW OUT (AMP), REC MUTE

W3: +12V (MECHA), GND (MECHA), GND (DIGITAL), +5.6V, HEAD PHONE PROTECT, METER Lch, METER Rch, GND (VIDEO), +5V

W4: GND (SIGNAL), +12V (AX), -7.6V, +7.6V, GND (DIGITAL/TC), +5.6V, +12V (TC), POO, -Vp, GND (SIGNAL/TC)

R28 2.2K

R26 33K

METER OUT Lch (A/D)

TR21 KTC3199 (GR. BL)

REC EQ AMP OUT Lch

C33 SRE1/50V

C34 SRE47/6.3V

R126 68K, R132 39K, R138 56K, R144 39K
R125 51K, R131 36K, R137 47K, R143 33K
R124 33K, R130 15K, R136 56K, R142 24K
R123 39K, R129 43K, R135 62K, R141 68K
R122 33K, R128 30K, R134 75K, R140 68K
R121 120K, R127 270K, R133 68K, R139 180K

C83 1/50V, C84 47/25

R45 22K

TR71 KTC3199 (GR. BL)

METER OUT Rch (A/D)

REC EQ AMP OUT Rch

No. 21~40, 71~80 No. 41~50, 121~150
R21~29, 71~79, 41~49 R121~144 C21~36, 71~86, 41~44 TR21~23, 71~73, 41~43 IC2 VR2, 52 VR2, 52 VR2, 52

TR22 KTC3199 (GR. BL), R27 5.1K, C36 B470P(K), TR23 KTC3199 (GR. BL), R29 22K

TR72 KTC3199 (GR. BL), R77 5.1K, C86 B470P(K), TR73 KTC3199 (GR. BL), R79 22K

R47 1.5K, R48 1.5K

R76 33K

R78 2.2K

TR43 DTA123JS, TR41 DTA123JS, TR42 DTA123JS

R49 1.5K

D285 1N4002, D286 1N4002

C301 4.7/50, R301 2K, IC301 STK4142-2 (2/2), C302 100P, C303 10P, R302 47K, R303 1.5K, R304 47K, R305 2.2K, C305 47/50, C304 100/16, R306 2.2K, R316 2.2K, C314 100/16, C315 47/50, R314 47K, R315 2.2K, C312 47K, R312 47K, R313 1.5K, C313 10P, C311 4.7/50, R311 2K

R308 10 (1W), R309 100K, C306 0.047, R307 56 (1W), C307 0.047, TR302 DTC114TS, R310 (2W), R317 56 (1W), C317 0.047, R319 100K, R318 (1W), TR312 DTC114TS, R320 0.1 (2W), R343 (1W), TR322 DTC114TS, R330 0.1 (2W), R329 100K, C326 0.047, C327 0.047, C337 0.047, C336 0.047, R332 DTC114TS, R340 0.1 (2W), R339 100K, R335E 0 (1W), R336 56 (1W), C335 47/50, R335 2.2K, R334

R351 10K, TR301 KTD1302, R352 10K, TR311 KTD1302, R353 10K, TR321 KTD1302, R354 10K, TR331 KTD1302

C321 4.7/50, R321 2K, IC302 STK4142-2 (1/2), C322 100P, C323 10P, R322 47K, R323 1.5K, C324 100/16, C325 47/50, R325 2.2K, R326 2.2K, R341 3K, R342 5.5K, C342 100/50, R344 10 (1W), C343 100/50, R336 2.2K, C335 47/50, R335 2.2K, C332 47K, R332 47K, C333 10P, C331 4.7/50, R331 2K

R345 330 (1W), R346 330 (1W), C344 0.001, C345 0.001, J301 HEADPHONE HSJ3000-01-010

R553 10K, TR530 DTC144ES

TR521 DTC114TS, TR522 DTC114TS, TR523 DTC114TS, TR524 DTC114TS

D529 1SS131, D530 1SS131, D532 1SS131, D533 1SS131, R543 47K, R544 47K, R545 1K, C535 3.3/50, R557 10K, R347 1K, C534 47/25

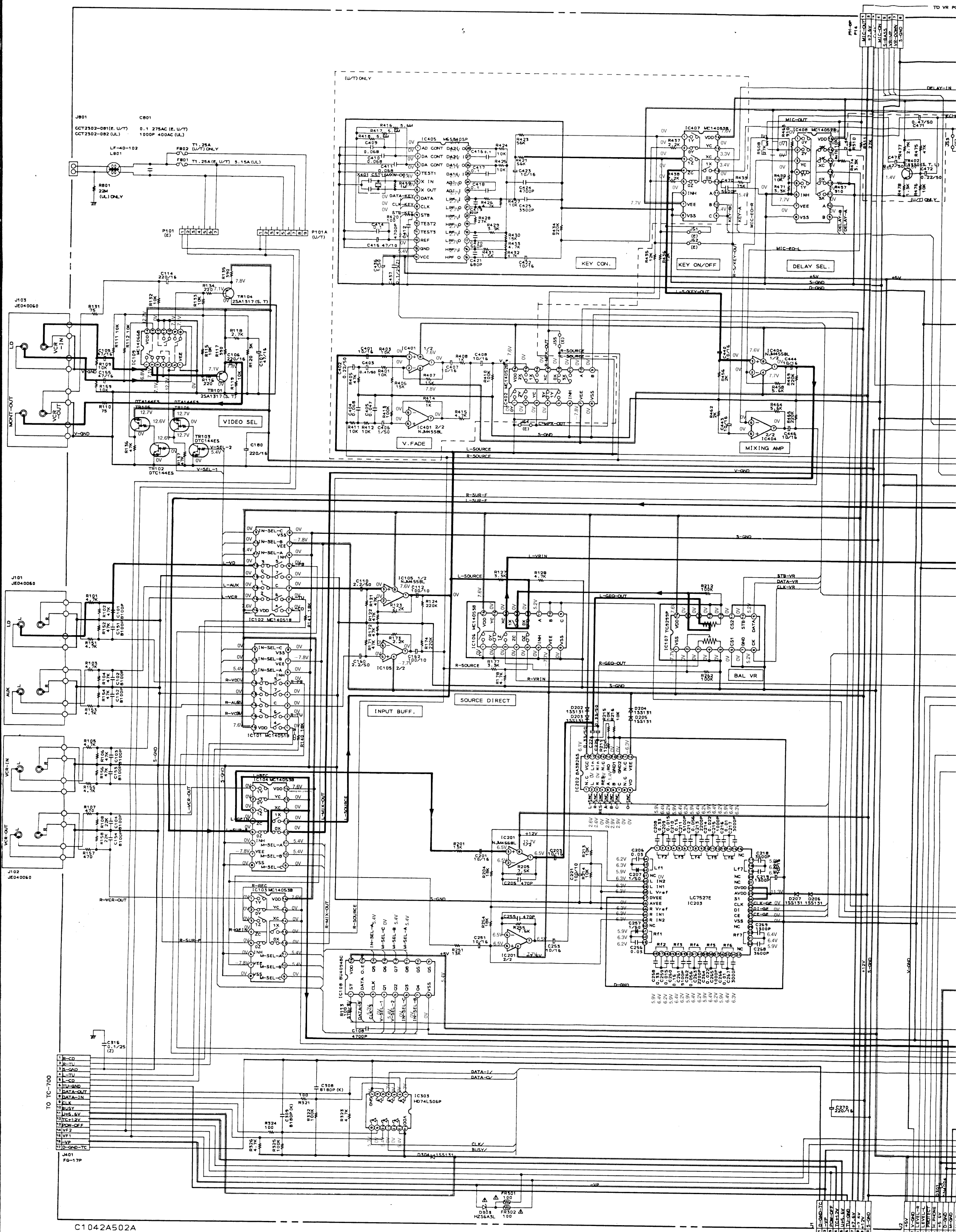
R552 10K, D528 1SS131, D539 1SS131, R542 10K, R540 4.7K, R538 8.2K, R562 1K, R537 10K, D524 1SS131, TR519 KTA1267, D526 1SS131, R539 1K, D525 1SS131, TR520 DTC144ES, R541 100K, TR532 DTC144ES, D540 1SS131, R556 68K, C526 22/25, C532 47/25, D527 MZ5682L

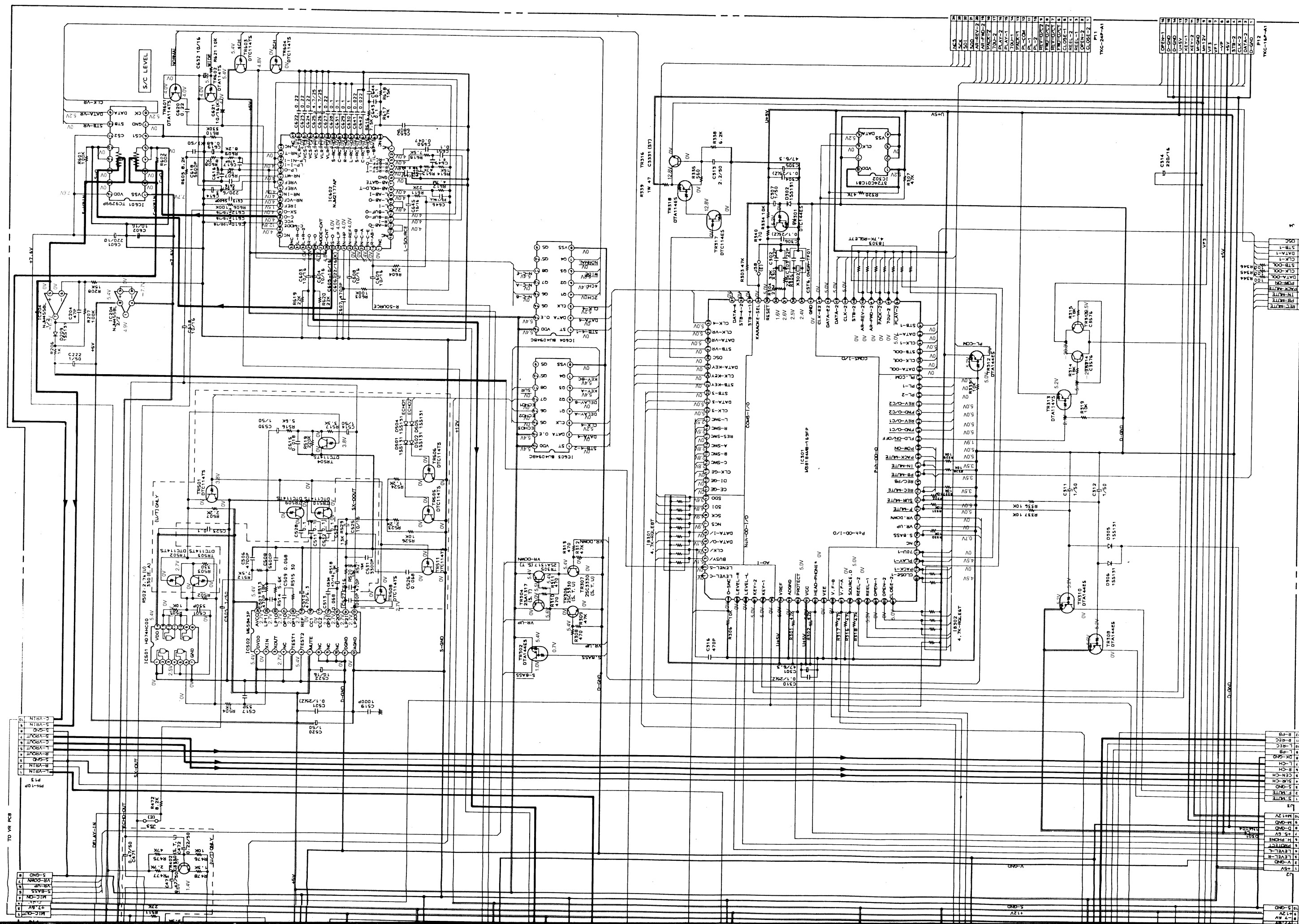
TM301 FRONT LCH, RIGHT RCH, SURROUND L, SURROUND R, CENTER CH, J302, JC01012BN, ONLY U, A

TM301 L341, C346 0.01, C347 0.01, C348 0.01, C349, FRONT LCH, RIGHT RCH, SURROUND, SURROUND R, L342, J302 CENTER CH, JC01012BN, ONLY E

SCHEMATIC DIAGRAM

PC(#)-PRE

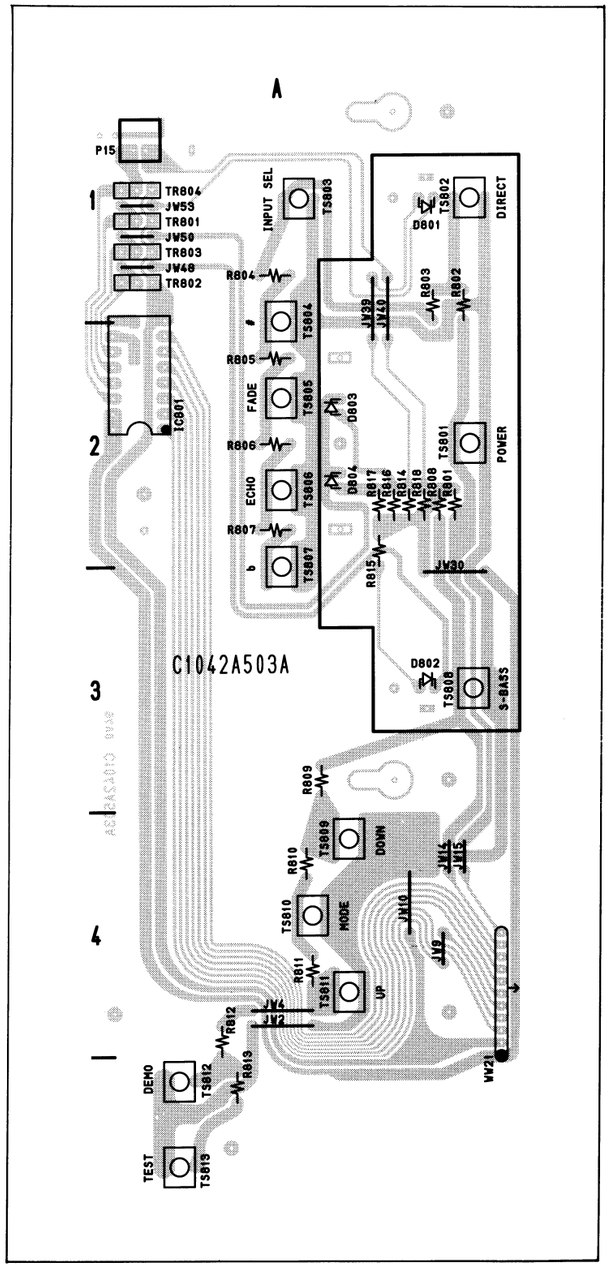



S/C LEVEL
NORMAL
MUTE
CLK-VR
DATA-VR
STB-VR
IC601 TC9299P
IC602 NJM2177AF
IC603 BU4094BC
IC604 BU4094BC
IC605 BU4094BC
IC501 HD74HC00
IC502 MSM6139
IC301 UPD18448-169FP
IR301 4.7K-RELAY
IR302 4.7K-RELAY
IC303 ST24C01CB1
TXC-249-A1
TXC-165-A1
P11
P12
P13
PH-10P
TO VR PCB
S/C-OUT
ECHO-OUT
DELAY-IN
KARAOKE-SEL
RESET
CLK-KEY
DATA-KEY
STB-KEY
CLK-VR
DATA-VR
STB-VR
CLK-1
DATA-1
STB-1
CLK-2
DATA-2
STB-2
AR-REV-2
AR-FWD-2
PACK-2
PLAY-2
REV-2
FWD-2
FLD-OV/OFF
POW-ON
PACK-WAIT
IN-WAIT
PB-WAIT
REC-WAIT
SUR-WAIT
F-WAIT
VR.DOWN
VR.UP
S.BASS
MC
TOU-1
PLAY-1
PACK-1
CLOSE-1
OPEN-1
REEL-1
REEL-2
CLOSE-2
OPEN-2
PL-COM
PL-1
PL-2
REC/PB
REC-OUT/2
FWD-O/C2
REV-O/C1
FWD-O/C1

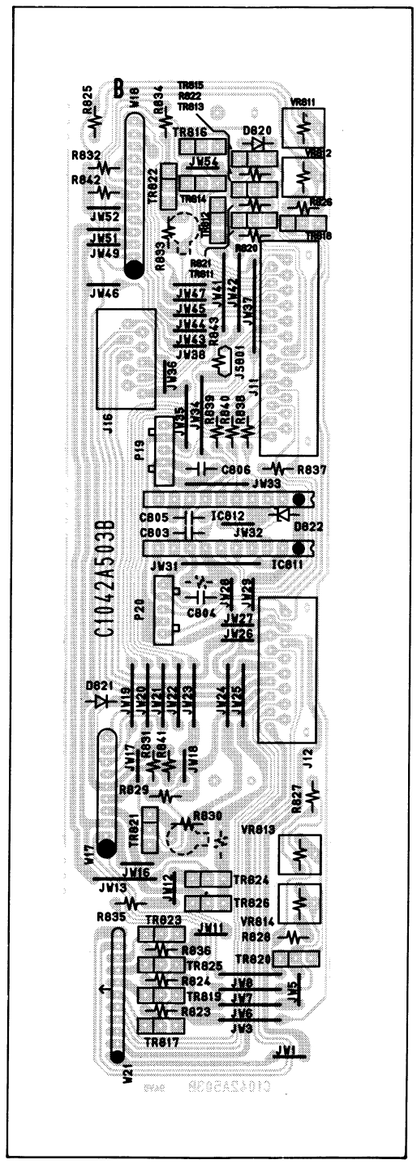
IX. PCB LAYOUT

1. PCB(#)-OPERATION

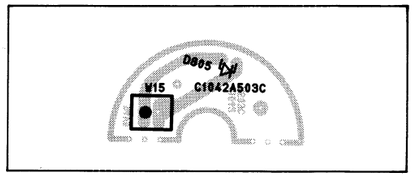
PCB(#)-OPERATION (A2U-167A)



PCB(#)-DECK MECHA DRIVE (A2U-167B)

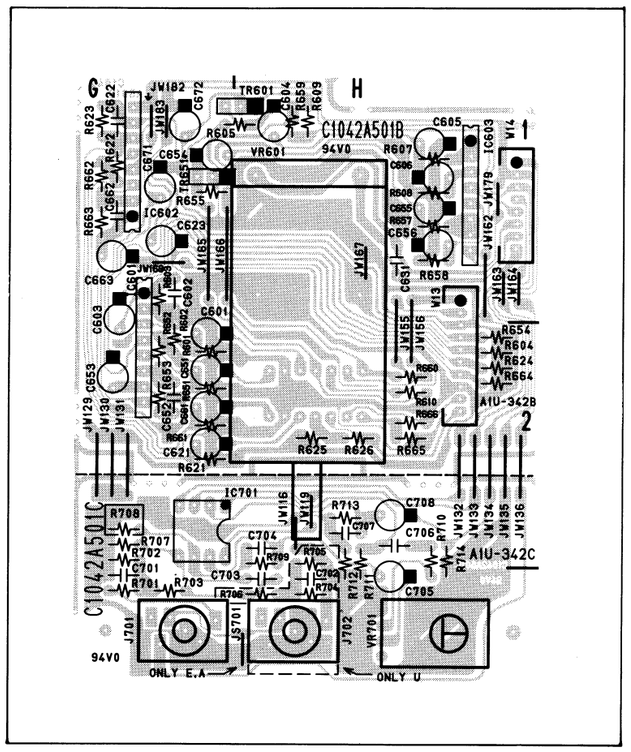


PCB(#)-VR LED (A2U-167C)



2. PCB(#)-MAIN

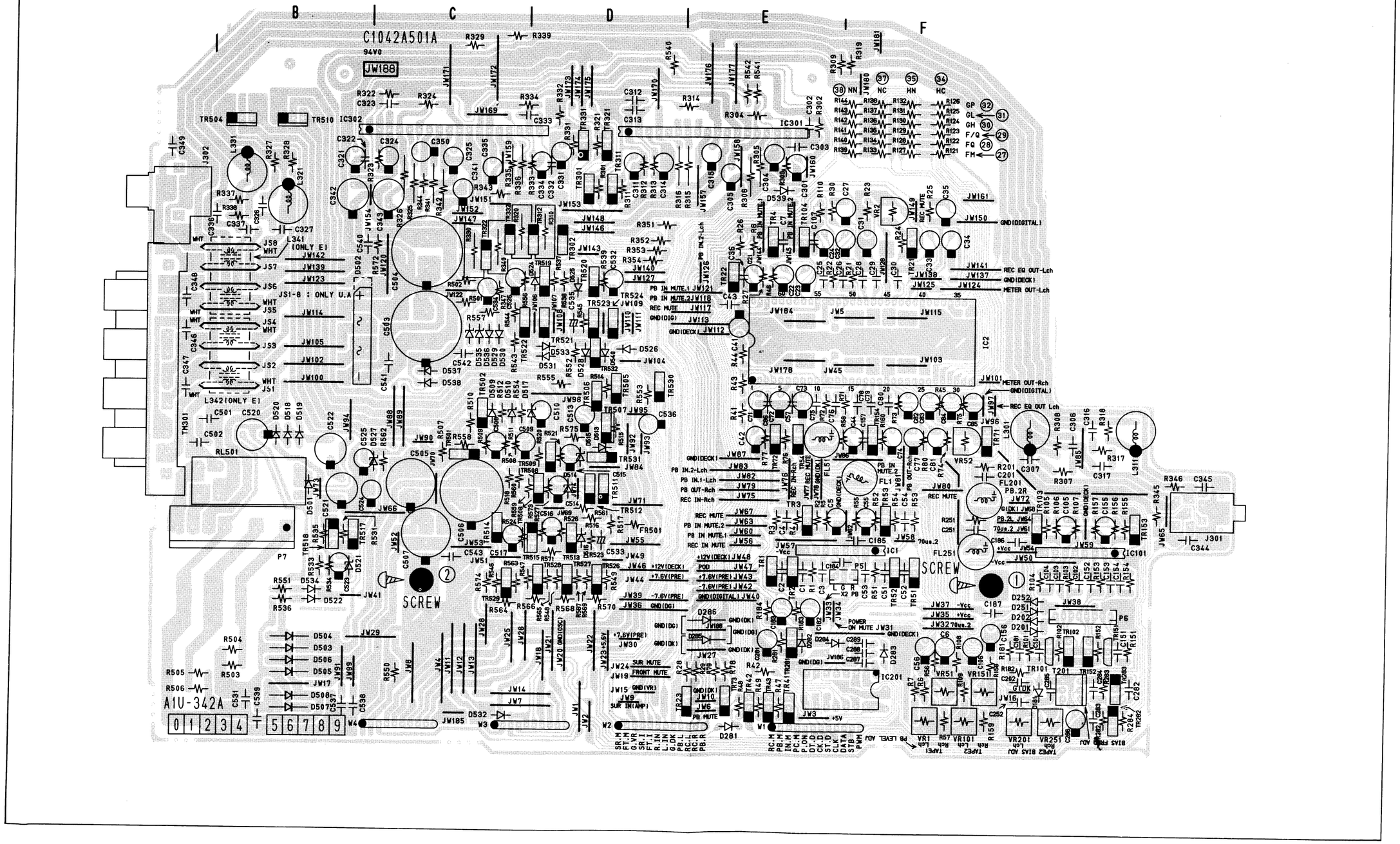
PCB(#)-MOTOR VR & SUPER BASS(A1U-342B)



PCB(#)-MIC JACK & AMP (A1U-342C)

PCB LAYOUT

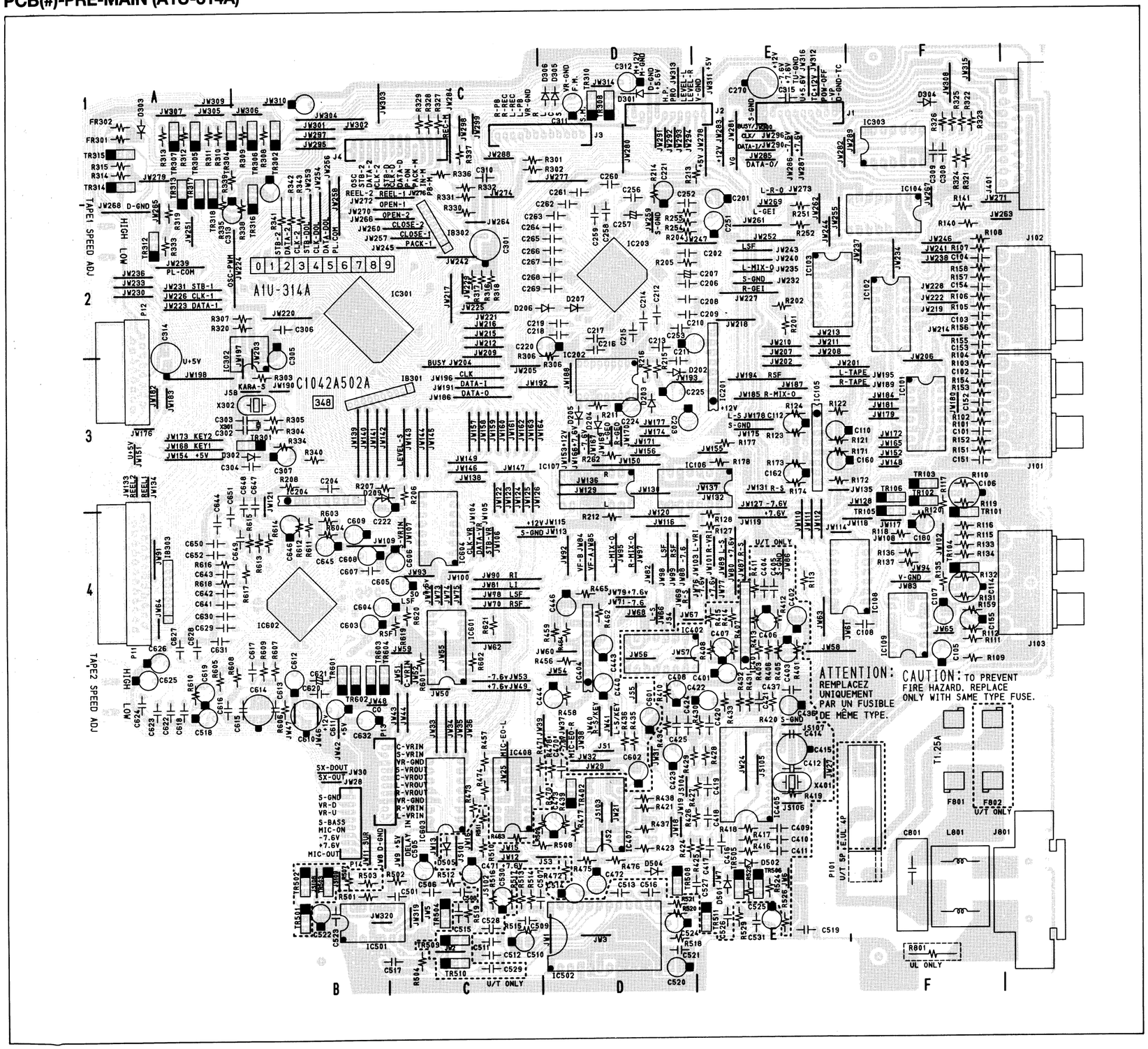
PCB(#)-MAIN (A1U-342A)



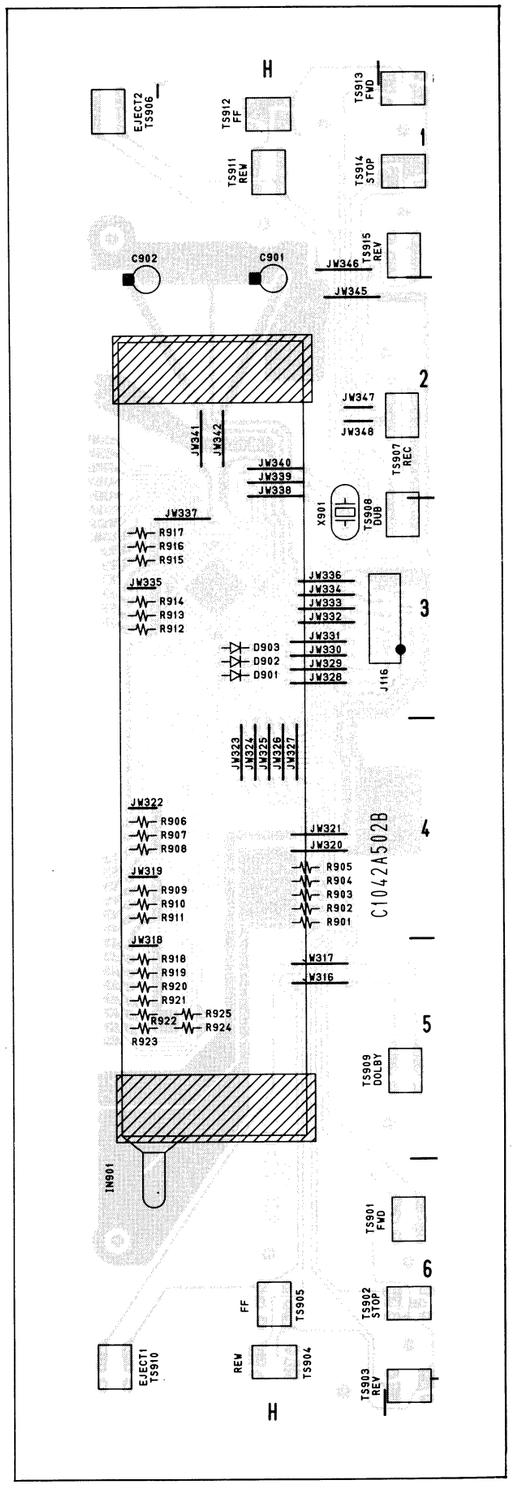
PCB LAYOUT

3. PCB(#)-PRE

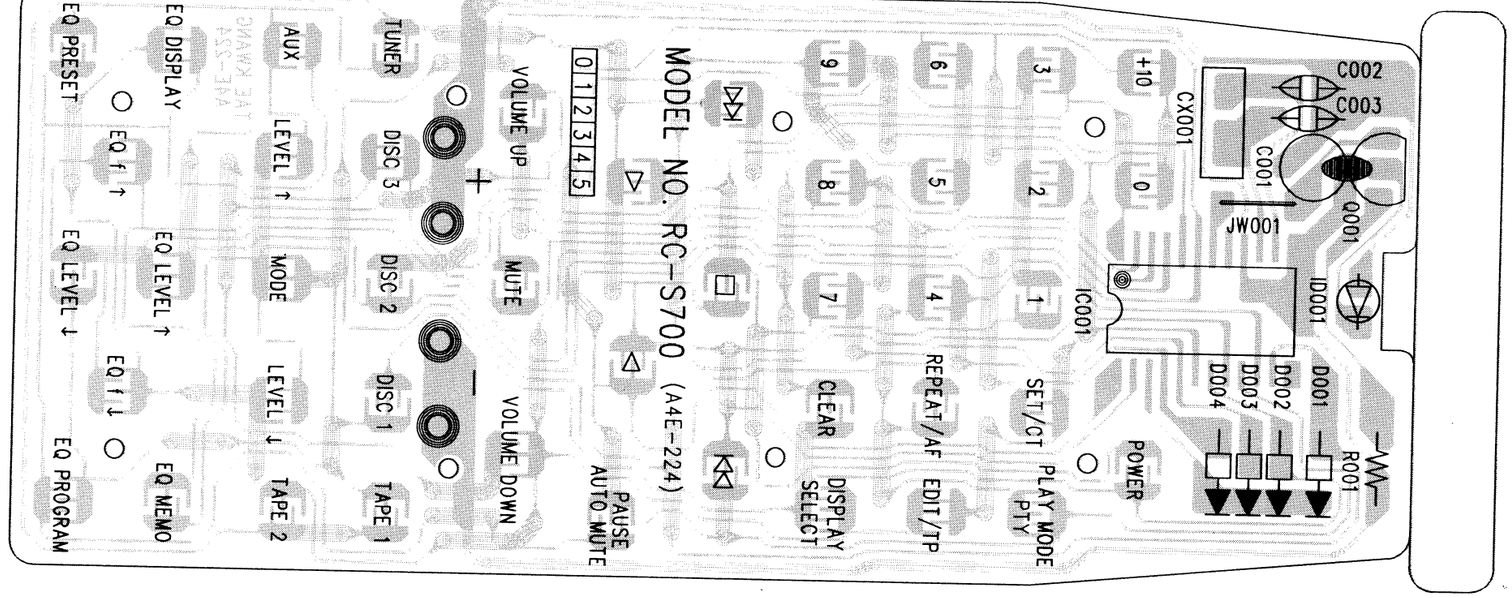
PCB(#)-PRE-MAIN (A1U-314A)



PCB(#)-PRE-FLD (A1U-341B)



4. PCB(#)-REMOTE (A4E-224)



X. INFORMATION OF ICs MI-COM

1. DECK CONTROL μ-COM (M38184M8-169FP)

Pin No	Port Name	I/O	Active	Description
1	LEVEL-C	I	–	NC
2	LEVEL-S	I	–	Surround Level Input
3	BUSY	O	–	Control of Communication with TUNER/CD μ-COM
4	CLK	I	–	Clock of Communication with TUNER/CD μ-COM
5	DATA-O	O	–	Data Output to TUNER/CD μ-COM
6	DATA-I	I	–	Data Input from TUNER/CD μ-COM
7	NCS	O	–	FL Display Control
8	SCK	O	–	Clock for Communication with MN12510
9	SDI	I	–	Key Data Input from MN12510 Display Driver
10	SDO	O	–	Data Output to MN12510 Display Driver
11	CE-GE	O	H	LC7527E Chip Enable
12	DI-GE	O	–	G.EQ Data Output to LC7527
13	CLK-GE	O	–	Clock Output Port to LC7527
14	C-SWC	O	–	BA3826S Control Port (IC202)
15	B-SWC	O	–	BA3826S Control Port (IC202)
16	A-SWC	O	–	BA3826S Control Port (IC202)
17	RES-SWC	O	–	BA3826S Reset Control
18	R-SWC	I	–	R-Serial Data IN from BA3826S
19	L-SWC	I	–	L-Serial Data IN from BA3826S
20	CLK-3	O	–	Clock Output to IC108 BU4094
21	DATA-3	O	–	IC108 Control Data Output
22	STB-3	O	–	IC108 Control Strobe Output
23	STB-KEY	O	–	IC405 M65840SP Control STB
24	CLK-KEY	O	–	IC405 M65840SP Control CLK
25	DATA-KEY	O	–	IC405 M65840SP Control Data
26	PWM OSC	O	–	REC OSC NOR/CrO_2 Control
27	STB-VR	O	–	IC107, IC601 VR IC Control STB
28	DATA-VR	O	–	IC107, IC601 VR IC Control Data
29	CLK-VR	O	–	IC107, IC601 VR IC Control CLK
30	CLK-4	O	–	IC603, IC604 BU4094 Control CLK
31	DATA-4	O	–	IC603, IC604 BU4094 Control Data
32	STB-4-2	O	–	IC603 BU4094 Control STB
33	STB-4-1	O	–	IC604 BU4094 Control STB
34	KARAOKE-SEL	I	H	KARAOKE Select (JSB)
35	RESET	I	L	μ-COM Reset
36	Xe-IN	I	–	Sub CLK OSC
37	Xe-OUT	O	–	Sub CLK OSC
38	X-IN	I	–	Main CLK OSC
39	X-0UT	O	–	Main CLK OSC
40	GND	–	–	μ-COM GND

Pin No	Port Name	I/O	Active	Description
41	CLK-E2	O	–	IC302 EEPROM CLK
42	DATA-E2	I/O	–	IC302 EEPROM Data I/O port
43	DATA-2	O	–	IC201 BU4094 CONTROL DATA
44	CLK-2	O	–	IC201 BU4094 CONTROL CLK
45	STB-2	O	–	IC201 BU4094 CONTROL STB
46	AR-REV-2	I	H	INPUT TO PREVENT RECORDING IN THE REVERSE DIRECTION
47	AR-FWD-2	I	H	INPUT TO PREVENT RECORDING IN THE FORWARD DIRECTION
48	PACK-2	I	L	Detect TAPE Loading in TAPE 2 deck
49	CrO_2-2	I	H/L	Input to detect 120μs and 70μs from TAPE2 L:120μs
50	PLAY-2	I	L	DETECT TAPE2 PLAY FOR OPERATION
51	STB-1	O	–	IC801 BU4094 CONTROL STB
52	DATA-1	O	–	IC801 BU4094 CONTROL DATA
53	CLK-1	O	–	IC801 BU4094 CONTROL CLK
54	STB-DOL	O	–	IC2 HA12155NT DOLBY IC CONTROL STB
55	CLK-DOL	O	–	IC2 HA12155NT DOLBY IC CONTROL CLK
56	DATA-DOL	O	–	IC2 HA12155NT DOLBY IC CONTROL DATA
57	PL. COMC	O	L	DECK PLUNGER POWER SOURCE (MB)
58	PL-1	O	H	TAPE1 PLUNGER CONTROL
59	PL-2	O	H	TAPE2 PLUNGER CONTROL
60	REV-O/C2	O	L	OPEN/CLOSE Motor Counter-rotaion Control (TAPE2)
61	FWD-O/C2	O	L	OPEN/CLOSE Motor Rotation Control (TAPE2)
62	REV-O/C1	O	L	OPEN/CLOSE Motor Counter-rotaion Control (TAPE1)
63	FWD-O/C1	O	L	OPEN/CLOSE Motor Rotation Control (TAPE1)
64	FLD-ON/OFF	O	L	FLD Filament Power Source ON/OFF Control
65	POW-ON	O	H	Power ON/OFF Control
66	PACK-MUTE	O	L	Power Amp Mute ON/OFF Control
67	IN-MUTE	O	L	Input Mute ON/OFF Control
68	PB-MUTE	O	L	Playback Mute Control
69	REC/PB	O	H/L	Head REC/PLAY Change Control H:PLAYBACK
70	REC-MUTE	O	L	REC MUTE ON/OFF Control
71	SUR-MUTE	O	L	Surround Mute ON/OFF Control
72	F-MUTE	O	L	Pre Amp Mute ON/OFF Control
73	VR. DOWN	O	H	Output to Turn Main Volume Down
74	VR. UP	O	H	Output to Turn Main Volume Up
75	S. BASS	O	H	Super Bass ON/OFF Control port
76	NC	–	–	No Connection
77	CrO_2-1	I	H	Detect 120μs or 70μs from TAPE1
78	PLAY-1	I	L	Detect TAPE1 Mecha Operation
79	PACK-1	I	L	Detect Tape Loading in TAPE1 deck
80	CLOSE-1	I	L	Detect TAPE1 Door Close

Pin No	Port Name	I/O	Active	Description
81	CLOSE-2	I	L	Detect Tape2 Door CLOSE
82	OPEN-2	I	L	Detect Tape2 Door EJECT OPEN
83	OPEN-1	I	L	Detect Tape1 Door EJECT OPEN
84	REEL-1	I	—	Rotation Reel Pulse Detection Input (TAPE1)
85	REEL-2	I	—	Rotation Reel Pulse Detection Input (TAPE2)
86	SOURCE. D	O	H	Source Direct ON/OFF Control
87	V. F-A	O	H	V. FADE, MPX Selection
88	V. F-B	O	H	V. FADE, MPX Selection
89	V_{EE}	—	—	GND
90	HEAD-PHONES	I		Input to Detect Headphones Input and Turn SURROUND MUTE ON/OFF
91	V_{CC}	—	—	5V Power Source
92	PROTECT	I	L	Input to Detect Operation for Protection
93	AD GND	—	—	Analog GND
94	V REF	I	—	Reference Voltage of A/D Converter
95	MIC ON	I	H	Input to determine Mic Jack input
96	KEY-1	I	—	Input to Detect Key Input (A/D)
97	KEY-2	I	—	Input to Detect Key Input (A/D)
98	LEVEL-L	I	L	Input to determine recorded or blank space of tape. (L: blank space)
99	LEVEL-R	I	L	Input to determine recorded or blank space of tape. (L: blank space)
100	O-SWC	O	—	BA3826S Control port

2. μ-COM OUTPUT EXPANSION (MC14094B)

a. EXPANSION 1 IC201

PIN NO.	EXPANSION PORT NAME
1	STB
2	DATA
3	CLOCK
4	TAPE1 70μs
5	TAPE2 70μs
6	×2 PB PEAK
7	TAPE2 SEARCH MUTE OFF
8	V_{SS} (GND)
9	QS
10	QS'
11	REC CrO_2
12	DOLBY ON/OFF
13	DOLBY B/C
14	TAPE1 SEARCH MUTE OFF
15	ENAB
16	V_{DD}

b. EXPANSION 2 IC801

PIN NO.	EXPANSION PORT NAME
1	STB
2	DATA
3	CLOCK
4	CAP2 ×1/×2
5	CAP1 ×1/×2
6	CAP1 ON/OFF
7	CAP2 ON/OFF
8	V_{SS} (GND)
9	QS
10	QS'
11	SUPER BASS LED
12	POWER LED
13	SOURCE DIRECT LED
14	VR LED
15	ENAB
16	V_{DD}

c. EXPANSION 2 IC108

PIN NO.	EXPANSION PORT NAME
1	STB
2	DATA
3	CLOCK
4	VIDEO SEL-1
5	VIDEO SEL-2
6	INPUT SEL-C
7	INPUT SEL-B
8	V_{SS}
9	QS
10	QS'
11	OUTPUT SEL-A
12	OUTPUT SEL-B
13	OUTPUT SEL-C
14	INPUT SEL-D
15	ENAB
16	V_{DD}

d. EXPANSION 2 IC604

PIN NO.	EXPANSION PORT NAME
1	STB 4-1
2	DATA
3	CLOCK
4	PROLOG 2CH
5	PROLOG 4CH
6	PROLOG WIDE
7	PROLOG NORMAL
8	V_{SS}
9	QS
10	QS'
11	PROLOG N-C-E
12	PROLOG N-C-A
13	PROLOG N-C-B
14	PROLOG C-CNT
15	ENAB
16	V_{DD}

e. EXPANSION 4 IC603

PIN NO.	EXPANSION PORT NAME
1	STB 4-2
2	DATA
3	CLOCK
4	DELAY A
5	DELAY B
6	KEYCON A
7	KEYCON B
8	V_{SS}
9	QS
10	QS'
11	SURROUND ON/OFF
12	ECHO LEVEL A
13	ECHO LEVEL B
14	ECHO LEVEL C
15	ENAB
16	V_{DD}

3. TRUE TABLE OF FUNCTION SELECTION

FUNCTION	CONTROL INPUT			IC101, 102
	A	B	C	MC14051B
OFF	L	L	L	0
AUX	H	L	L	1
VCR	L	H	L	2
LD	H	H	L	3
CD	L	L	H	4
TAPE1, 2	H	L	H	5
TUNER	L	H	H	6
—	H	H	H	7

4. TRUE TABLE OF OUTPUT CHANGE

FUNCTION	SURROUND/ KARAOKE MODE	OUTPUT CHANGE INPUT			MC14053 ON CHANNEL	REC OUT
		A	B	C		
—	—	L	L	L	0X, 0Y, 0Z	—
VCR	SURROUND ON	H	L	L	1X, 0Y, 0Z	TAPE
—	—	L	H	L	0X, 1Y, 0Z	—
CD, LD, AUX, TUNER, TAPE	SURROUND ON	H	H	L	1X, 1Y, 0Z	VCR, TAPE
VCR	MIX ON	L	L	H	0X, 0Y, 1Z	TAPE
VCR	TOTAL OFF	H	L	H	1X, 0Y, 1Z	TAPE
CD, LD, AUX, TUNER, TAPE	MIX ON	L	H	H	0X, 1Y, 1Z	VCR, TAPE
CD, LD, AUX, TUNER, TAPE	TOTAL OFF	H	H	H	1X, 1Y, 1Z	VCR, TAPE

5. TRUE TABLE OF V. FADE

MODE	V.FADE OUTPUT		IC402 MC14052B
	A	B	ON CHANNEL
V. FADE OFF	L	L	0X, 0Y
—	H	L	1X, 1Y
V. FADE ON	L	L	2X, 2Y
MPX ON	H	H	3X, 3Y

*AX-705K only

6. KEY CON/DELAY INPUT CHANGE CONTROL

MODE	KEY CON CONTROL		IC402 MC14053B
	A	B, C	CHANNEL ON
KARAOKE KEYCON-ON	L	L	0X, 0Y, 0Z
—	H	L	1X, 1Y, 0Z
KARAOKE KEYCON-OFF	L	H	0X, 1Y, 1Z
SURROUND ON	H	H	1X, 1Y, 1Z

7. MIC ECHO CHANGE TRUE TABLE

MODE		MODE		DELAY CONTROL		IC408 MC14052B
Y	N	SURRONND OR SOURCE DIRECT		A	B	CHANNEL ON
O	O	KARAOKE OR NORMAL	MIC-OFF	L	L	0X, 0Y
O	O		MIC-ON ECHO-OFF	H	L	1X, 1Y
O	X		MIC-ON ECHO-ON	L	H	2X, 2Y
X	X	X		H	H	3X, 3Y

8. ECHO LEVEL CHANGE TRUE TABLE

MODE	KEY. CON CONTROL		
	A	B	C
ECHO LEVEL 0	H	H	H
ECHO LEVEL 1	L	L	H
ECHO LEVEL 2	L	H	L
ECHO LEVEL 3	H	L	L
ECHO LEVEL 4	L	L	L

*AX-705K only

9. SOURCE DIRECT TRUE TABLE

MODE	SOURCE DIRECT CHANGE
SOURCE DIRECT OFF	L
SOURCE DIRECT ON	H

10. DOLBY PROLOGIC CHANGE TRUE TABLE

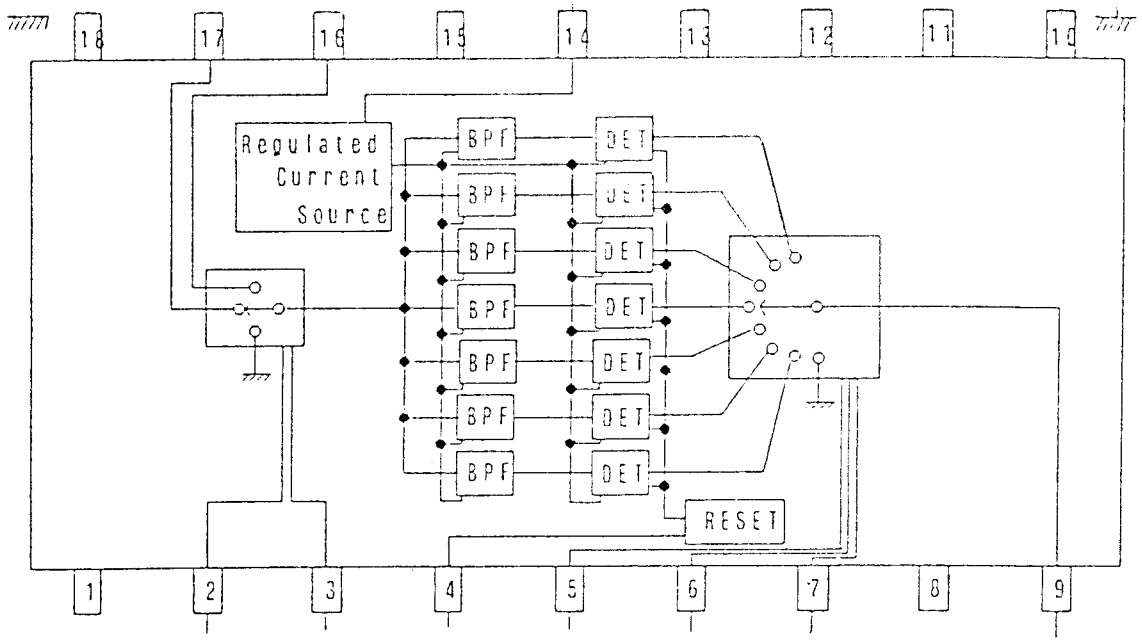
MODE SPEAKER / OUTPUT	PROLOGIC OFF 3CH STEREO OFF	PROLOGIC ON NORMAL L.C.R.S	PROLOGIC ON PHANTOM L.R.S	PROLOGIC ON WIDE L.C.R.S	3CH STEREO ON NORMAL L.C.R	3CH STEREO ON WIDE L.C.R
2-CH	H	L	L	L	L	L
4-CH	L	H	H	H	L	L
WIDE	H	H	H	L	H	L
NORMAL	L	L	H	H	L	H
C-CNT	L	L	L	L	H	H
N-C-A	L	L	L	L	L	L
N-C-B	L	L	L	L	L	L
N-C-E	H	H	H	H	H	H
S-BASS	—	—	—	H	—	H

* " — " indicates "no change from the existing logic".

11. STEREO MODE TRUE TABLE WITH DOLBY PROLOGIC/3CH STEREO ON

SPEAKER TEST MODE / OUTPUT	TEST L	TEST C	TEST R	TEST S
N-C-A	L	L	H	H
N-C-B	L	H	L	H
N-C-E	L	L	L	L

12. BA3826S



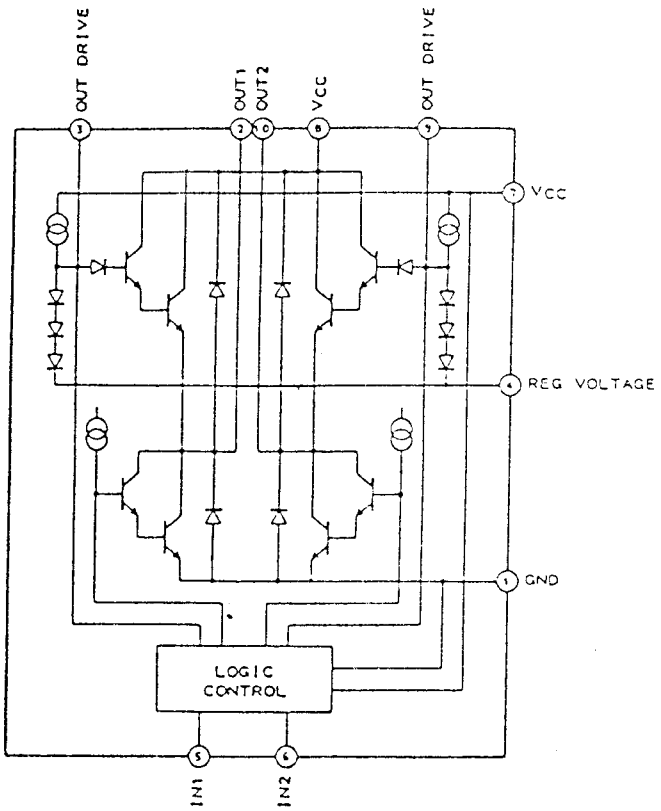
LOGIC TABLE OF INPUT CHANGE

Select		Input
L(2pin)	R(3pin)	
L	L	don't care
L	H	Lin
H	L	Rin
H	H	OFF

LOGIC TABLE OF OUTPUT CHANGE

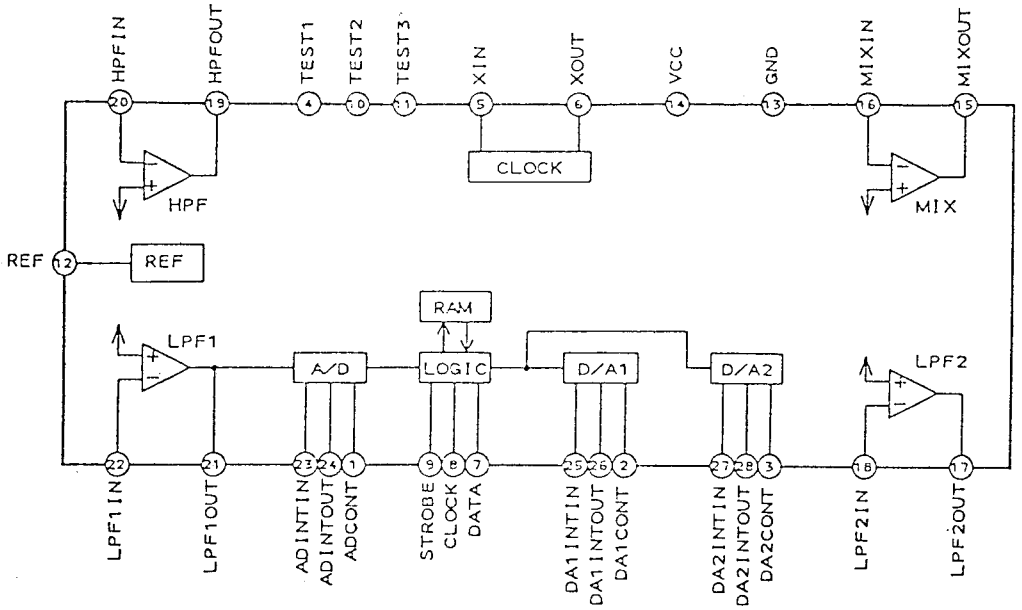
Select			Output
A(5pin)	B(6pin)	C(7pin)	Vo(9pin)
H	H	H	O
L	H	H	fo1
H	L	H	fo2
L	L	H	fo3
H	H	L	fo4
L	H	L	fo5
H	L	L	fo6
L	L	L	fo7

13. BA6229 (BI-DIRECTIONAL MOTOR DRIVE)



INPUT		OUTPUT		MODE
⑤	⑥	②	⑩	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

14. M65840SP (DIGITAL KEY-CONTROL)

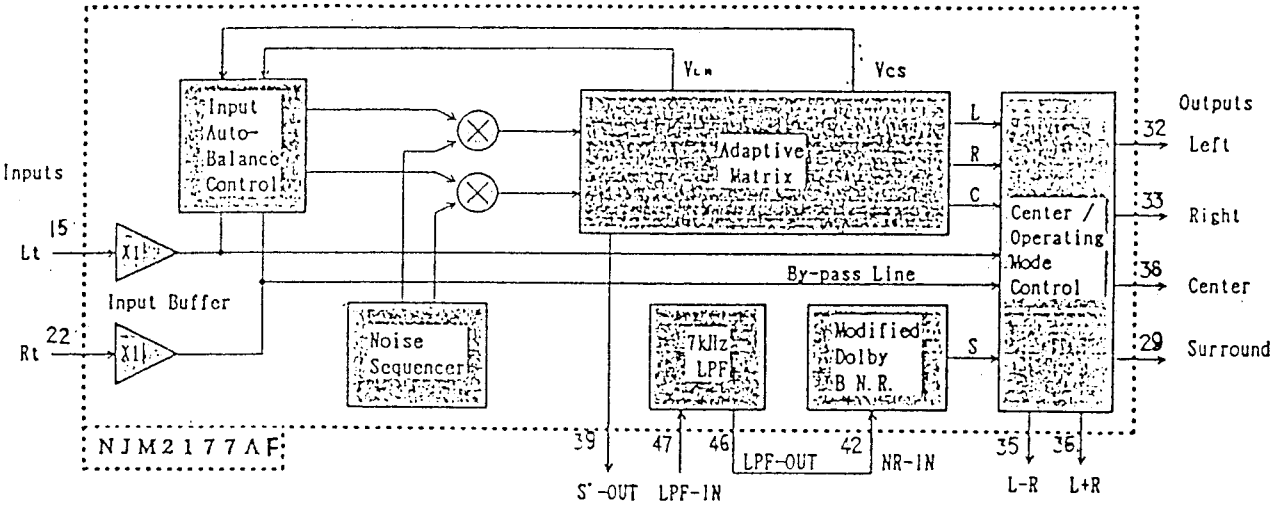


Pin No.	Port Name	I/O	Function
1	ADCONT	—	Fixes the optimum time constant of ADM system A/D conversion.
2	DA1CONT	—	Fixes the optimum time constant of ADM system D/A1 conversion.
3	DA2CONT	—	Fixes the optimum time constant of ADM system D/A2 conversion.
4	TEST1		Test pin (L: normal mode, H: test mode).
5	X IN	I	X'tal OSC input (16 MHz).
6	X OUT	O	X'tal OSC output (16 MHz).
7	DATA	I	Serial bus data input.
8	CLOCK	I	Serial bus clock input.
9	STROBE	I	Serial bus strobe input.
10, 11	TEST 2, 3	—	Not used.
12	REF	O	Reference voltage output (1/2 Vcc output). Afiltering capacitor should be connected to this pin.
13	GND	—	Ground pin of this IC.
14	Vcc	—	+5V power supply.
15	MIXOUT	O	Mixes the key controlled low frequency range signal with the through high frequency range signal.
16	MIXIN	I	
17	LPF2OUT	O	Post filter, after D/A conversion for key control.
18	LPF2IN	I	
19	HPFOUT	O	High pass filter for high through.
20	HPFIN	I	
21	LPF1OUT	O	Pre filter, before A/D conversion for key control.
22	LPF1IN	I	
23	ADINTIN	I	Constructs the integrator for A/D conversion from the external capacitor.
24	ADINTOUT	O	
25	DA1INTIN	I	Constructs the integrator for D/A1 conversion from the external capacitor.
26	DA1INTOUT	O	
27	DA2INTIN	I	Constructs the integrator for D/A2 conversion from the external capacitor.
28	DA2INTOUT	O	

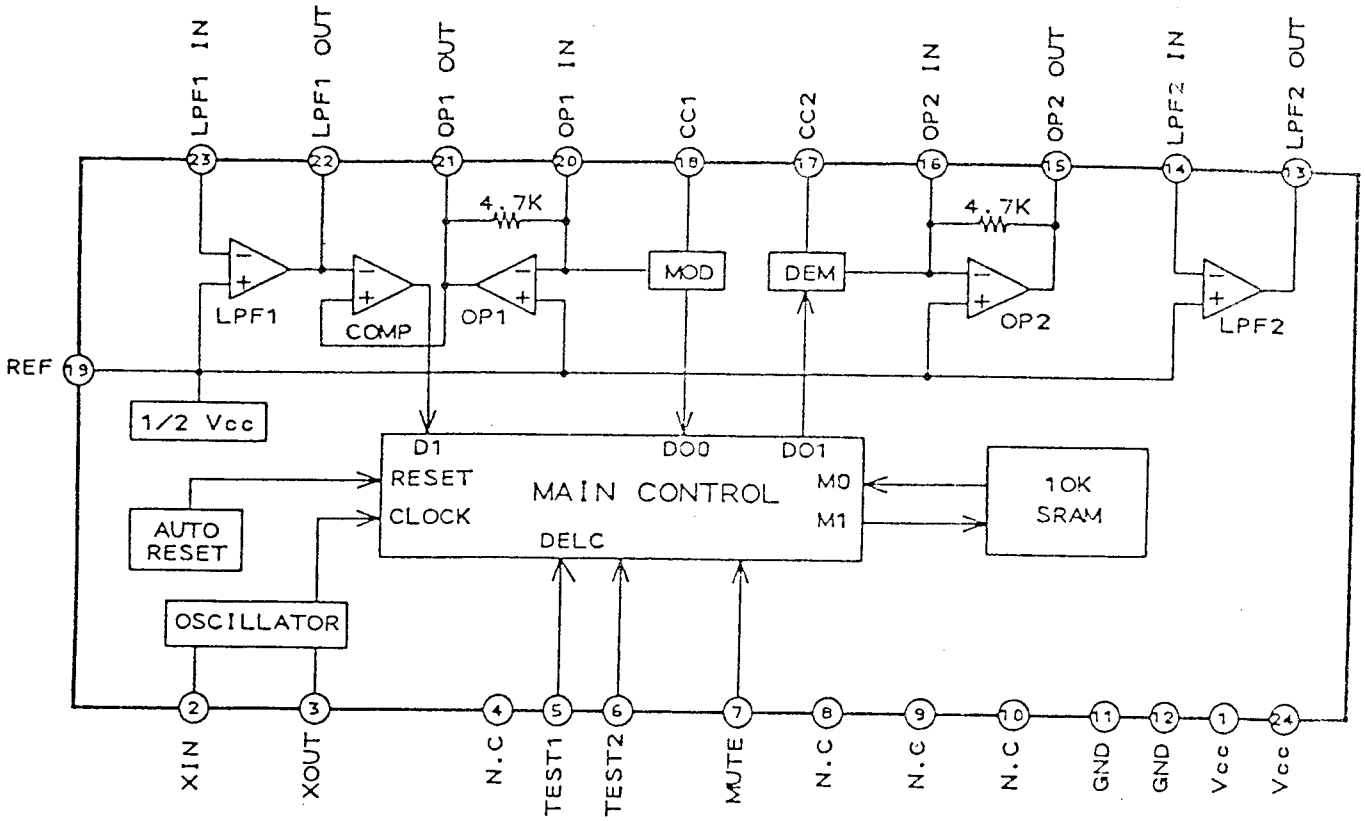
15. HA12155NT (DOLBY NR)

Pin No.	Port Name	I/O	Function
1	NR ON/OFF	I	Mode control
2	C/$\overline{B}$	I	
3	MPX $\overline{ON}$/OFF	I	
62	STB	I	
64	DATA	I	
4	Vcc	–	+B (Power supply)
5, 60	VR1	I	Volume input
6, 59	CNT	I	DAC output volume control
7, 58	RPI	I	Recording input
8	RFF	–	Ripple filter
9, 56	PBI	I	Play back input
10	INJ	I	Injection current input for I^{2}L
11, 54	IA OUT	–	Not used
12, 53	NR IN	I	NR processor input
13, 52	VREF	O	Reference voltage buffer output
14, 51	PB OUT	O	Play back output (decode)
15, 50	SS1	I	Spectral skewing amp
16, 49	SS2	O	
17, 48	CCR	O	Current controlled resistor
18, 47	HLS DET	–	Time constant pin for rectifier
19, 46	LLS DET	–	
20, 45	REC OUT	O	Recording output (encode)
21, 44	LM IN	I	Level meter input
22, 43	LMD	O	Time constant pin for level meter
23, 42	LM OUT	O	Level meter output
24, 41	EQ IN	I	Equalizer input
25	IREF	I	EQ referrence current input
26, 39	EQ OUT	O	Equalizer output
27	FM	O	EQ parameter current input
28	fQ	O	
29	f/Q	O	
30	GH	O	
31	GL	O	
32	Gp	O	
33	HM	–	EQ parameter selector
34	HC	–	
35	HN	–	
36	NM	–	
37	NC	–	
38	NN	–	
40, 61	GND	–	Ground
55	D GND	–	Digital ground
57	BIAS	I	DOLBY NR reference current input

16. NJM2177AF



17. M65843P (DIGITAL ECHO)



Pin No.	Port Name	I/O	Function
1	VDD	—	+5V power supply for digital section.
2	X IN	I	X'tal OSC input.
3	X OUT	—	X'tal OSC output
4	NC	—	No connection.
5	TEST 1	I	Test pin (fixed H in the normal condition).
6	TEST 2	I	Test pin (fixed L in the normal condition).
7	MUTE	I	Mute control input (L: mute).
8~10	NC	—	No connection.
11	D. GND	—	Digital ground.
12	A. GND	—	Analog ground.
13	LPF2 OUT	O	Constructs the output side low pass filter from the externally connected capacitor & resistor.
14	LPF2 IN	I	
15	OP2 OUT	O	Constructs the integrator for demodulation from the externally connected capacitor & resistor.
16	OP2 IN	I	
17	CC2	—	Current control for demodulator ADM control.
18	CC1	—	Current control for modulator ADM control.
19	REF	—	Analog reference voltage (1/2 Vcc).
20	OP1 IN	I	Constructs the integrator for modulation from the externally connected capacitor & resistor.
21	OP1 OUT	O	
22	LPF1 OUT	O	Constructs the input side low pass filter from the externally connected capacitor & resistor.
23	LPF1 IN	I	
24	Vcc	—	+5V analog power supply.

ABBREVIATIONS

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

CASSETTE

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi Plex
AR	Anti Recording	MQSS	Memory Quick Search System
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord(RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF(or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLuoresent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Ligh Emitting Diode	X'TAL	crysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

I. SPECIFICATION

MODEL NO: SR-700(X4-VER)

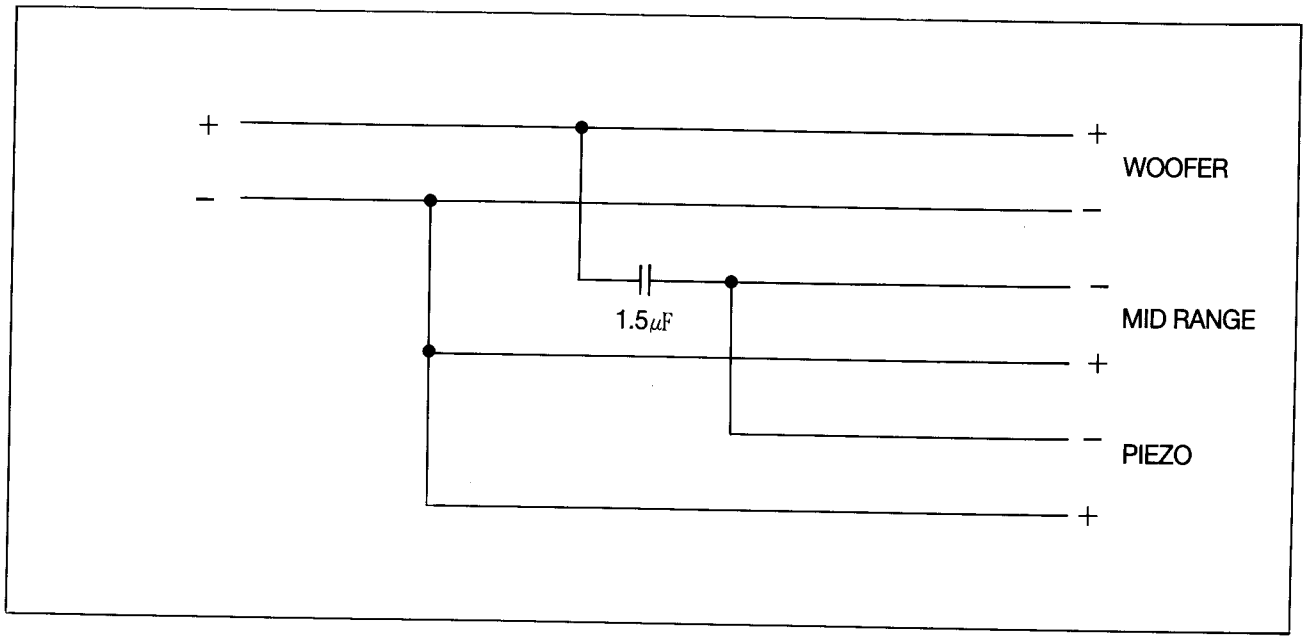
Type	3Way Bass Reflex
Component	Woofer : TAU-13W03009
	Tweeter : CT-57F15T
	Piezo : PT-20T
Rated Power Input	30W
Maximum Power Input	60W
Rated Impedance	6 Ohm
Dimension	179(W) × 320.5(H) × 253(D)mm
Weight	4Kg/PC

MODEL NO: SR-700(Y1-VER)

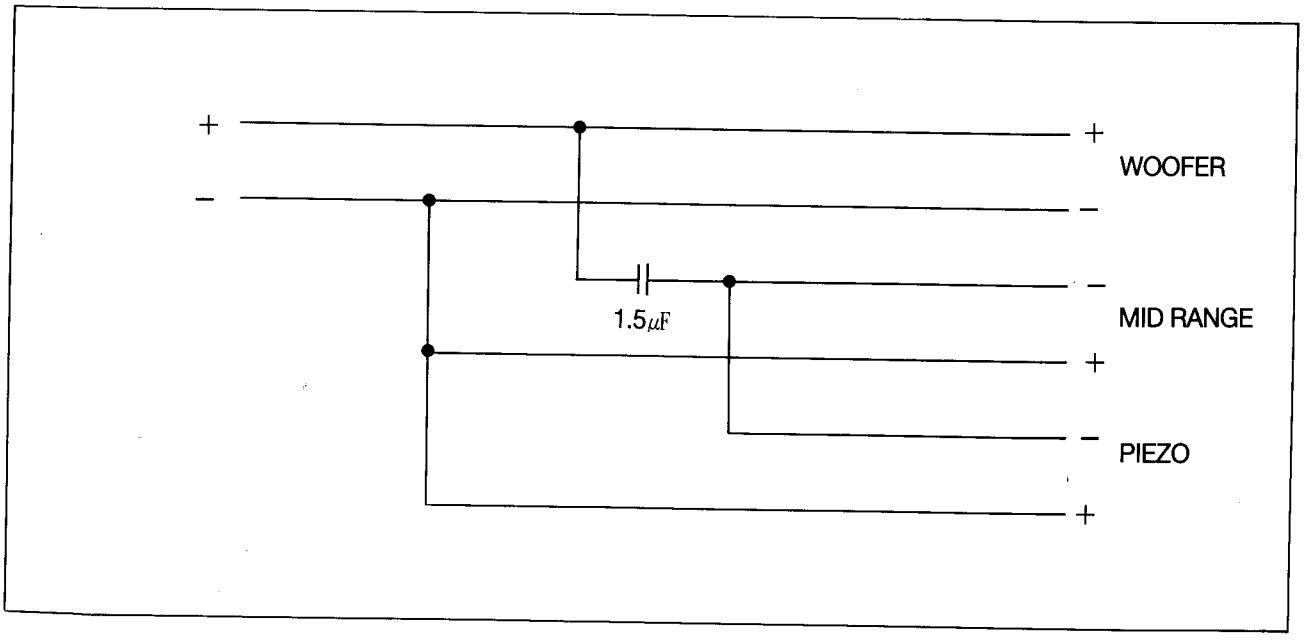
Type	3Way Bass Reflex
Component	Woofer : TAU-13W03008
	Tweeter : CT-57F14T
	Piezo : PT-20T
Rated Power Input	30W
Maximum Power Input	60W
Rated Impedance	6 Ohm
Dimension	179(W) × 320.5(H) × 253(D)mm
Weight	4Kg/PC

II. SCHEMATIC DIAGRAM

Model No: SR-700(X4-VER)

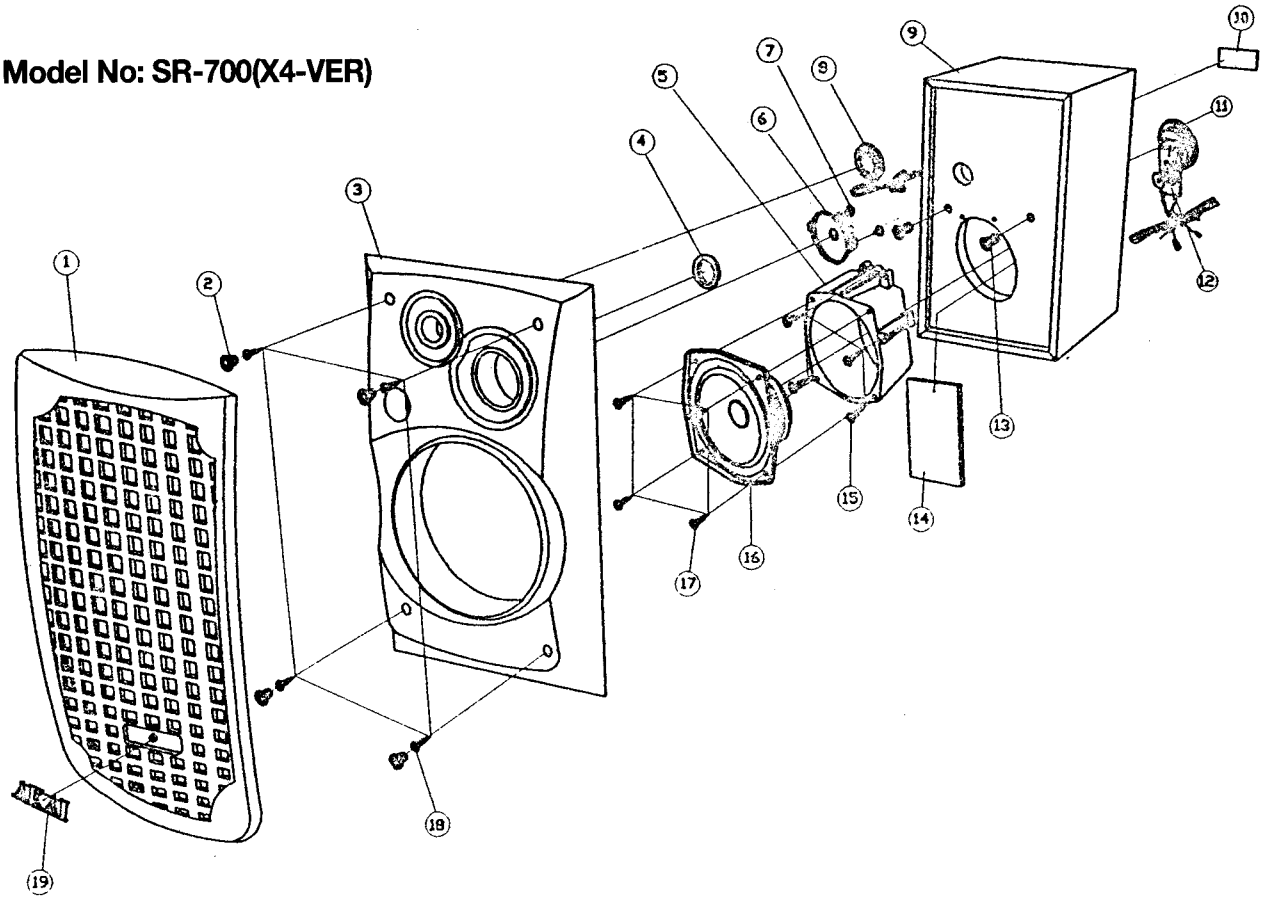


Model No: SR-700(Y1-VER)



III. PARTS LIST

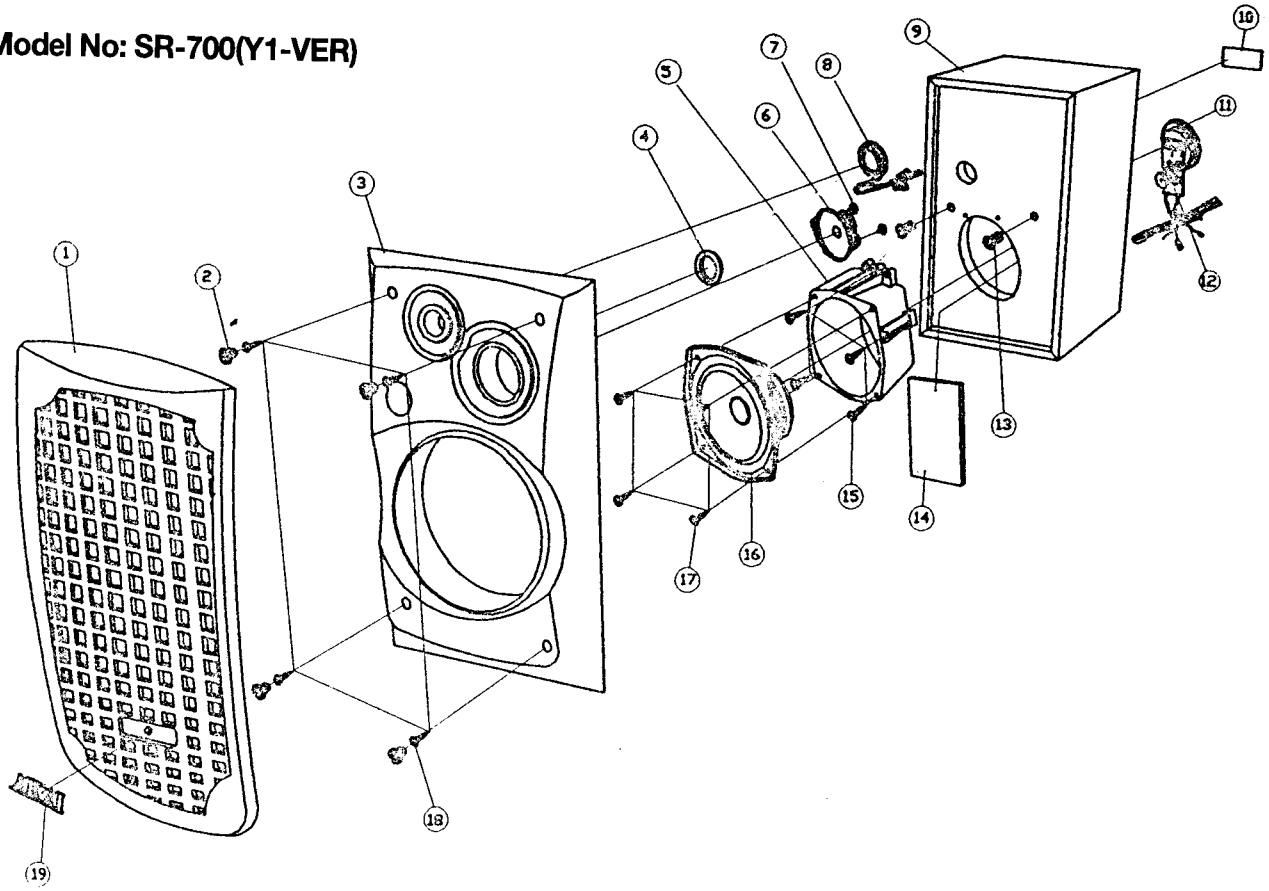
Model No: SR-700(X4-VER)



MODEL NO: SR-700(X4-VER)

Ref. No	Part No.	Part Name	Description
1	MJSG-00340-001	FRAME NET	
2	MJSG-061-004	HOOK	
3(L)	MJSF-00610-ZZ1	COVER FRONT (L)	
3(R)	MJSF-00611-ZZ1	COVER FRONT (R)	
4	MRSG-07260-004	DUCT CUSHION	
5	MJSG-00420-002	WOOFER RING	
6	SPKT-00880-A70	SPEAKER TWEETER	
7	MMSC-00320-004	SCREW COVER	D3×D9.5 W/W×7
8	SPPZ-00010-A70	SPEAKER PIEZO	PT-20T
9(L)	AMSW-02310-ZZ2	CABINET SPEAKER (L)	178(W)×320.5(H)×190(D)mm
9(R)	AMSW-02311-ZZ2	CABINET SPEAKER (R)	178(W)×320.5(H)×190(D)mm
10(L)	YLSP-F1100-01B	LABEL BACK (L)	
10(R)	YLSP-F1100-01B	LABEL BACK (R)	
11	TESP-00130-02P	TERMINAL-SP	AP4-0041
12	NETS-01310-X20	NET WORK	TN-700
13	MJSG-00470-004	HOOK TAPER	
14	MRSG-07311-004	SPONGE	
15	XSWB-40150-ZY1	SCREW WOOD	BHT1 4×15 FE-ZY
16	A2UW-F6100-01J	SPEAKER WOOFER	TAU-13W03009
17	XSTB-40120-ZB4	SCREW TAPPING	BHT2T 4×12 FE-ZB
18	XSWF-35180-ZY1	SCREW WOOD	BHT1 3.5×15 FE-ZB
19	MJSF-00460-ZZ4	BADGE	

Model No: SR-700(Y1-VER)



MODEL NO: SR-700(Y1-VER)

Ref. No	Part No.	Part Name	Description
1	MJSG-00340-001	FRAME NET	
2	MJSG-061-004	HOOK	
3(L)	MJSF-00610-ZZ1	COVER FRONT (L)	
3(R)	MJSF-00611-ZZ1	COVER FRONT (R)	
4	MRSG-07260-004	DUCT CUSHION	
5	MJSG-00420-002	WOOFER RING	
6	SPKT-00870-A70	SPEAKER TWEETER	
7	MMSC-00320-004	SCREW COVER	D3×D9.5 W/W×7
8	SPPZ-00010-A70	SPEAKER PIEZO	PT-20T
9(L)	AMSW-02310-ZZ2	CABINET SPEAKER (L)	178(W)×320.5(H)×190(D)mm
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10(L)	YLSP-F1000-01B	LABEL BACK (L)	
10(R)	YLSP-F1000-01B	LABEL BACK (R)	
11	TESP-00130-02P	TERMINAL-SP	AP4-0041
12	NETS-01310-X20	NET WORK	TN-700
13	MJSG-00470-004	HOOK TAPER	
14	MRSG-07311-004	SPONGE	
15	XSWB-40150-ZY1	SCREW WOOD	BHT1 4×15 FE-ZY
16	A2UW-F6000-01J	SPEAKER WOOFER	TAU-13W03008
17	XSTB-40120-ZB4	SCREW TAPPING	BHT2T 4×12 FE-ZB
18	XSWF-35180-ZY1	SCREW WOOD	BHT1 3.5×15 FE-ZB
19	MJSF-00460-ZZ4	BADGE	